AUTHORIZATION TO DISCHARGE UNDER
THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA",

SubCom Cable Systems, LLC

is authorized to discharge from a facility located at

SubCom Cable Systems, LLC
100 Piscataqua Drive
Newington, NH 03801

to receiving water named

Piscataqua River
Piscataqua Watershed

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on the first day of the calendar month immediately following 60 days after signature.[1]

This permit expires at midnight, five years from the last day of the month preceding the effective date.

This permit supersedes the permit issued on April 15, 2010.

This permit consists of this **cover page**, **Part I**, **Attachment A** (Marine Acute Toxicity Test Procedure and Protocol, July 2012), and **Part II** (NPDES Part II Standard Conditions, April 2018).

Signed this day of

_____
Ken Moraff, Director
Water Division
Environmental Protection Agency
Region 1
Boston, MA

[1] Pursuant to 40 Code of Federal Regulations (C.F.R.) § 124.15(b)(3), if no comments requesting a change to the Draft Permit are received, this permit shall become effective upon the date of signature.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge extrusion contact cooling water, test tank water, and air conditioner condensate through Outfall Serial Number 007 to the Piscataqua River. The discharge shall be limited and monitored as specified below; the receiving water shall be monitored as specified below.

Effluent Characteristic	**Effluent Limitation**		**Monitoring Requirements[1,2,3]**	
	Average Monthly	**Maximum Daily**	**Measurement Frequency[4]**	**Sample Type[5]**
Effluent Flow[6]	0.06 MGD	0.16 MGD	Continuous	Meter
pH[7]	6.5 - 8.0 S.U.		1/month	Grab
Temperature	---	27ºC (80.6ºF)	1/month	Grab
Total Residual Chlorine (TRC)[8]	---	Report mg/L	1/month	Grab
Total Copper	0.37 mg/L	Report mg/L	2/month	Composite
Total Zinc	8.6 mg/L	Report mg/L	2/month	Composite
Whole Effluent Toxicity (WET) Testing[9,10]				
LC_{50}	---	Report %	1 per 3 years	Composite
Salinity	---	Report ppt	1 per 3 years	Composite
Ammonia Nitrogen	---	Report mg/L	1 per 3 years	Composite

Effluent Characteristic	Effluent Limitation		Monitoring Requirements[1,2,3]	
	Average Monthly	Maximum Daily	Measurement Frequency[4]	Sample Type[5]
Total Cadmium	---	Report mg/L	1 per 3 years	Composite
Total Copper	---	Report mg/L	1 per 3 years	Composite
Total Nickel	---	Report mg/L	1 per 3 years	Composite
Total Lead	---	Report mg/L	1 per 3 years	Composite
Total Zinc	---	Report mg/L	1 per 3 years	Composite

Ambient Characteristic[11]	Reporting Requirement		Monitoring Requirements[1,2,3]	
	Average Monthly	Maximum Daily	Measurement Frequency[4]	Sample Type[5]
Salinity	---	Report ppt	1 per 3 years	Grab
Ammonia Nitrogen	---	Report mg/L	1 per 3 years	Grab
Total Cadmium	---	Report mg/L	1 per 3 years	Grab
Total Copper	---	Report mg/L	1 per 3 years	Grab
Total Nickel	---	Report mg/L	1 per 3 years	Grab
Total Lead	---	Report mg/L	1 per 3 years	Grab
Total Zinc	---	Report mg/L	1 per 3 years	Grab

pH[12]	---	Report S.U.	1 per 3 years	Grab
Temperature[12]	---	Report °C	1 per 3 years	Grab

2. During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge extrusion contact cooling water and air conditioner condensate through internal Outfall Serial Number 008 to the Piscataqua River. The discharge shall be limited and monitored as specified below.

Effluent Characteristic	**Effluent Limitation**		**Monitoring Requirements[1,2,3]**	
	Average Monthly	**Maximum Daily**	**Measurement Frequency[4]**	**Sample Type[5]**
Contact Cooling Water Flow[6]		Report Total MGD	Continuous	Meter
Extrusion Process Operating Days		Report Total days/month	Continuous	Count
Total Suspended Solids (TSS)	---	1.5 lbs/day	2/month	Composite
Biochemical Oxygen Demand (BOD)	---	2.0 lbs/day	2/month	Composite
Oil and Grease (O&G)	---	2.2 lbs/day	2/month	Grab
Diethylhexyl Phthalate[13]	---	Report mg/L	1/year	Grab

Footnotes:

1. Effluent samples shall yield data representative of the discharge. A routine sampling program shall be developed in which samples are taken at the discharge point to the receiving water (Outfall 007) and after the extrusion contact cooling water collection sump (Internal Outfall 008), prior to co-mingling with any other wastestream. Changes in sampling location must be approved in writing by the Environmental Protection Agency Region 1 (EPA) and the State. The Permittee shall report the results to EPA and the State of any additional testing above that required herein, if testing is done in accordance with 40 C.F.R. § 136.

2. In accordance with 40 C.F.R. § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. chapter I, subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

3. When a parameter is not detected above the ML, the Permittee must report the data qualifier signifying less than the ML for that parameter (e.g., < 50 µg/L, if the ML for a parameter is 50 µg/L).

4. Measurement frequency of 2/month is defined as the sampling of two discharge events in each calendar month. Measurement frequency of 1/month is defined as the sampling of one discharge event in each calendar month. Measurement frequency of 1/year is defined as the sampling of one discharge event during one calendar year. Annual (1/year) testing shall be conducted in July. If no sample is collected during the measurement frequencies defined above, the Permittee must report an appropriate No Data Indicator Code.

5. Each composite sample will consist of at least eight grab samples taken during one consecutive 24-hour period, either collected at equal intervals and combined proportional to flow or continuously collected proportionally to flow. In calculating and reporting the average monthly concentration when the pollutant is not detected, assign zero to the non-detected sample result if the pollutant was not detected using a sufficiently sensitive test method.

6. Effluent flow shall be measured and recorded using a flow meter and totalizer or similar device and reported in million gallons per day (MGD).

7. The pH shall be within the specified range at all times. The minimum and maximum pH sample measurement values for the month shall be reported in standard units (S.U.). See Part I.C.1 below for a provision to modify the pH range.

8. Monitoring for total residual chlorine (TRC) is only required for discharges which have been previously chlorinated, or which contain residual chlorine. For the purposes of this permit, TRC analysis must be completed using a test method in 40 C.F.R. § 136 that achieves a minimum level of detection no greater than 30 µg/L.

9. The Permittee shall conduct acute toxicity tests (LC_{50}) once every three years, during the calendar month of **July** in accordance with test procedures and protocols specified in **Attachment A** of this permit. Testing shall begin in the first full calendar year after the permit becomes effective. LC_{50} and C-NOEC are defined in Part II.E. of this permit. The Permittee shall test Mysid Shrimp (*Mysidopsis bahia*) and Inland Silverside (*Menidia beryllina*). All testing results shall be submitted on the monthly toxicity DMR for **September** of each year the test is performed and the complete report for each toxicity test shall be submitted as an attachment to the **September** toxicity DMR. For years when no WET testing is required, the Permittee must report the No Data Indicator (NODI) code "9", which denotes "conditional monitoring/not required this period" on the **September** toxicity DMR.

10. For Part I.A.1., Whole Effluent Toxicity Testing, the Permittee shall conduct the analyses specified in **Attachment A**, Part VI. CHEMICAL ANALYSIS for the effluent sample. If toxicity test(s) using the receiving water as diluent show the receiving water to be toxic or unreliable, the Permittee shall follow procedures outlined in **Attachment A**, Section IV., DILUTION WATER. Minimum levels and test methods are specified in **Attachment A**, Part VI. CHEMICAL ANALYSIS.

11. For Part I.A.1., Ambient Characteristic, the Permittee shall conduct the analyses specified in **Attachment A**, Part VI. CHEMICAL ANALYSIS for the receiving water sample collected as part of the WET testing requirements. Such samples shall be taken from the receiving water at a point outside the zone of influence of the permitted discharge's outfall at a reasonably accessible location, as specified in **Attachment A**. Minimum levels and test methods are specified in **Attachment A**, Part VI. CHEMICAL ANALYSIS.

12. A pH and temperature measurement shall be taken of each receiving water sample at the time of collection and the results reported on the appropriate DMR. These pH and temperature measurements are independent from any pH and temperature measurements required by the WET testing protocols.

13. For the purposes of this permit, diethylhexyl phthalate (a.k.a. bis (2-ethyl hexyl) phthalate) analysis must be completed using a test method in 40 C.F.R. § 136 that achieves a minimum level no greater than 5.9 µg/L.

Part I.A. continued.

3. The discharge shall not cause a violation of the water quality standards of the receiving water.

4. The discharge shall be free from substances in kind or quantity that settle to form harmful benthic deposits; float as foam, debris, scum or other visible substances; produce odor, color, taste or turbidity that is not naturally occurring and would render the surface water unsuitable for its designated uses; result in the dominance of nuisance species; or interfere with recreational activities.

5. Tainting substances shall not be present in the discharge in concentrations that individually or in combination are detectable by taste and odor tests performed on the edible portions of aquatic organisms.

6. The discharge shall not result in toxic substances or chemical constituents in concentrations or combinations in the receiving water that injure or are inimical to plants, animals, humans or aquatic life; or persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife that might consume aquatic life.

7. The discharge shall not result in benthic deposits that have a detrimental impact on the benthic community. The discharge shall not result in oil and grease, color, slicks, odors, or surface floating solids that would impair any existing or designated uses in the receiving water.

8. The discharge shall not result in an exceedance of the naturally occurring turbidity in the receiving water by more than 10 NTUs.

9. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 C.F.R. § 122.42):

   a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (1) 100 micrograms per liter (µg/L);
      (2) 200 µg/L for acrolein and acrylonitrite; 500 µg/L for 2,4-dinitrophenol; and one milligram per liter (mg/L) for antimony;
      (3) Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. § 122.21(g)(7); or
      (4) Any other notification level established by the Director in accordance with 40 C.F.R. § 122.44(f) and State regulations.

b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) 500 µg/L;
(2) One mg/L for antimony;
(3) 10 times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. § 122.21(g)(7); or
(4) Any other notification level established by the Director in accordance with 40 C.F.R. § 122.44(f) and State regulations.

c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

B. UNAUTHORIZED DISCHARGES

1. This permit authorizes discharges only from the outfall(s) listed in Part I.A.1, in accordance with the terms and conditions of this permit. Discharges of wastewater from any other point sources are not authorized by this permit and shall be reported in accordance with Part D.1.e.(1) of the Standard Conditions of this permit (24-hour reporting).

2. The discharge of any chemical or additive is prohibited.

C. SPECIAL CONDITIONS

1. The pH range may be modified if the Permittee satisfies conditions set forth in Part I.E.3 below. Upon notification of an approval by the State, EPA will review and, if acceptable, will submit written notice to the Permittee of the permit change. The modified pH range will not be in effect until the Permittee receives written notice from EPA.

D. REPORTING REQUIREMENTS

Unless otherwise specified in this permit, the Permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

1. Submittal of DMRs Using NetDMR

a. The Permittee shall continue to submit its monthly monitoring data in discharge monitoring reports (DMRs) to EPA and the State no later than the 15th day of the month electronically using NetDMR. When the Permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to EPA or the State. NetDMR is accessible through EPA's Central Data Exchange at https://cdx.epa.gov/.

2. Submittal of Reports as NetDMR Attachments

Unless otherwise specified in this permit, the Permittee shall electronically submit all reports to EPA as NetDMR attachments rather than as hard copies. *See* Part I.D.5. for more information on State reporting. Because the due dates for reports described in this permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date specified in this permit.

3. Submittal of Requests and Reports to EPA Water Division (WD)

   a. The following requests, reports, and information described in this permit shall be submitted to the EPA NPDES Applications Coordinator in the WD:

      (1) Transfer of Permit notice;
      (2) Request for changes in sampling location;
      (3) Request for pH Effluent Limitation Adjustment;
      (4) Request for change in WET testing requirements; and
      (5) Report on unacceptable dilution water/request for alternative dilution water for WET testing.

   b. These reports, information, and requests shall be submitted to EPA WD electronically at R1NPDESReporting@epa.gov or by hard copy mail to the following address:

U.S. Environmental Protection Agency
Water Division
NPDES Applications Coordinator
5 Post Office Square - Suite 100 (06-03)
Boston, MA 02109-3912

4. Submittal of Reports in Hard Copy Form

   a. The following notifications and reports shall be signed and dated originals, submitted in hard copy, with a cover letter describing the submission:

      (1) Prior to 21 December 2020, written notifications required under Part II. Starting on 21 December 2020, such notifications must be done electronically using EPA's NPDES Electronic Reporting Tool ("NeT"), or another approved EPA system, which will be accessible through EPA's Central Data Exchange at https://cdx.epa.gov/.

   b. This information shall be submitted to EPA ECAD at the following address:

U.S. Environmental Protection Agency
Enforcement and Compliance Assurance Division
Water Compliance Section
5 Post Office Square, Suite 100 (04-SMR)
Boston, MA 02109-3912

5. State Reporting

Unless otherwise specified in this permit or by the State, duplicate signed copies of all reports, information, requests or notifications described in this permit, including the reports, information, requests or notifications described in Parts I.D.3 through I.D.6 shall also be submitted to the New Hampshire Department of Environmental Services, Water Division (NHDES–WD) electronically to the Permittee's assigned NPDES inspector at NHDES-WD or as a hardcopy to the following address:

New Hampshire Department of Environmental Services
Water Division
Wastewater Engineering Bureau
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

6. Verbal Reports and Verbal Notifications

   a. Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit, shall be made to both EPA and to the State. This includes verbal reports and notifications which require reporting within 24 hours (e.g., Part II.B.4.c.(2), Part II.B.5.c.(3), and Part II.D.1.e).

   b. Verbal reports and verbal notifications shall be made to EPA's Office of Environmental Stewardship at:

   617-918-1510

   c. Verbal reports and verbal notifications shall also be made to the Permittee's assigned NPDES inspector at NHDES–WD.

E. STATE PERMIT CONDITIONS

1. The Permittee shall not at any time, either alone or in conjunction with any person or persons, cause directly or indirectly the discharge of waste into the said receiving water unless it has been treated in such a manner as will not lower the legislated water quality classification or interfere with the uses assigned to said water by the New Hampshire Legislature (RSA 485-A:12).

2. This NPDES Discharge Permit is issued by the EPA under Federal and State law. Upon final issuance by the EPA, the NHDES–WD may adopt this permit, including all terms and conditions, as a State permit pursuant to RSA 485-A:13. Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action and shall not affect the validity or status of the Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation.

3. The pH range of 6.5 to 8.0 Standard Units (S.U.) must be achieved in the final effluent unless the Permittee can demonstrate to NHDES–WD: 1) that the range should be widened due to naturally occurring conditions in the receiving water; or 2) that the naturally occurring receiving water pH is not significantly altered by the Permittee's discharge. The scope of any demonstration project must receive prior approval from NHDES–WD. In no case, shall the above procedure result in pH limits outside the range of 6.0 to 9.0 S.U., which is the federal effluent limitation guideline regulation for pH for secondary treatment and is found in 40 C.F.R. § 133.102(c).

4. Best Management Practices (BMPs)

   a. The effluent diffuser shall be maintained to ensure proper operation. Proper operation means that the outfall pipe be intact, operating as designed, and have unobstructed flow. Maintenance may include dredging in the vicinity of the diffuser, removal of solids/debris in the diffuser header pipe, and repair/replacement.

   b. To determine if maintenance will be required, the Permittee shall inspect and videotape the operation of the diffuser either remotely or using a qualified diver or marine contractor. The inspections and videotaping shall be performed every three years. EPA and NHDES-WD shall be contacted at least seven days prior to a dive inspection.

   c. Any necessary maintenance dredging must be performed only during the marine construction season authorized by the New Hampshire Fish & Game Department and only after receiving all necessary permits from the NHDES Wetlands Bureau, U.S. Coast Guard, U.S. Army Corps of Engineers, and other appropriate agencies.

   d. Copies of reports summarizing the results of each diffuser inspection shall be submitted to EPA and NHDES–WD within 60 days of each inspection. Where it is determined that maintenance will be necessary, the Permittee shall provide the proposed schedule for the maintenance.

ATTACHMENT A

MARINE ACUTE
TOXICITY TEST PROCEDURE AND PROTOCOL

I. GENERAL REQUIREMENTS

The permittee shall conduct acceptable acute toxicity tests in accordance with the appropriate test protocols described below:

- **2007.0 - Mysid Shrimp (Americamysis bahia) definitive 48 hour test.**

- **2006.0 - Inland Silverside (Menidia beryllina) definitive 48 hour test.**

Acute toxicity data shall be reported as outlined in Section VIII.

II. METHODS

The permittee shall use the most recent 40 CFR Part 136 methods. Whole Effluent Toxicity (WET) Test Methods and guidance may be found at:

http://water.epa.gov/scitech/methods/cwa/wet/index.cfm#methods

The permittee shall also meet the sampling, analysis and reporting requirements included in this protocol. This protocol defines more specific requirements while still being consistent with the Part 136 methods. If, due to modifications of Part 136, there are conflicting requirements between the Part 136 method and this protocol, the permittee shall comply with the requirements of the Part 136 method.

III. SAMPLE COLLECTION

A discharge and receiving water sample shall be collected. The receiving water control sample must be collected immediately upstream of the permitted discharge's zone of influence. The acceptable holding times until initial use of a sample are 24 and 36 hours for on-site and off-site testing, respectively. A written waiver is required from the regulating authority for any holding time extension. Sampling guidance dictates that, where appropriate, aliquots for the analysis required in this protocol shall be split from the samples, containerized and immediately preserved, or analyzed as per 40 CFR Part 136. EPA approved test methods require that samples collected for metals analyses be preserved immediately after collection. Testing for the presence of total residual chlorine[1] (TRC) must be analyzed immediately or as soon as possible, for all effluent samples, prior to WET testing. TRC analysis may be performed on-site or by the toxicity testing laboratory and the samples must be dechlorinated, as necessary, using sodium thiosulfate

[1] For this protocol, total residual chlorine is synonymous with total residual oxidants.

prior to sample use for toxicity testing. If performed on site the results should be included on the chain of custody (COC) presented to WET laboratory.

Standard Methods for the Examination of Water and Wastewater describes dechlorination of samples (APHA, 1992). Dechlorination can be achieved using a ratio of 6.7 mg/L anhydrous sodium thiosulfate to reduce 1 mg/L chlorine. If dechlorination is necessary, a thiosulfate control consisting of the maximum concentration of thiosulfate used to dechlorinate the sample in the toxicity test control water must also be run in the WET test.

All samples submitted for chemical and physical analyses will be analyzed according to Section VI of this protocol. Grab samples must be used for pH, temperature, and total residual chlorine (as per 40 CFR Part 122.21).

All samples held for use beyond the day of sampling shall be refrigerated and maintained at a temperature range of 0-6^{o} C.

IV. DILUTION WATER

Samples of receiving water must be collected from a reasonably accessible location in the receiving water body immediately upstream of the permitted discharge's zone of influence. Avoid collection near areas of obvious road or agricultural runoff, storm sewers or other point source discharges and areas where stagnant conditions exist. EPA strongly urges that screening for toxicity be performed prior to the set up of a full, definitive toxicity test any time there is a question about the test dilution water's ability to achieve test acceptability criteria (TAC) as indicated in Section V of this protocol. The test dilution water control response will be used in the statistical analysis of the toxicity test data. All other control(s) required to be run in the test will be reported as specified in the Discharge Monitoring Report (DMR) Instructions, Attachment F, page 2,Test Results & Permit Limits.

The test dilution water must be used to determine whether the test met the applicable TAC. When receiving water is used for test dilution, an additional control made up of standard laboratory water (0% effluent) is required. This control will be used to verify the health of the test organisms and evaluate to what extent, if any, the receiving water itself is responsible for any toxic response observed.

If dechlorination of a sample by the toxicity testing laboratory is necessary a "sodium thiosulfate" control, representing the concentration of sodium thiosulfate used to adequately dechlorinate the sample prior to toxicity testing, must be included in the test.

If the use of alternate dilution water (ADW) is authorized, in addition to the ADW test control, the testing laboratory must, for the purpose of monitoring the receiving water, also run a receiving water control.

If the receiving water is found to be, or suspected to be toxic or unreliable, ADW of known quality with hardness similar to that of the receiving water may be substituted. Substitution is

species specific meaning that the decision to use ADW is made for each species and is based on the toxic response of that particular species. Substitution to an ADW is authorized in two cases. The first case is when repeating a test due to toxicity in the site dilution water requires an **immediate decision** for ADW use by the permittee and toxicity testing laboratory. The second is when two of the most recent documented incidents of unacceptable site dilution water toxicity require ADW use in future WET testing.

For the second case, written notification from the permittee requesting ADW use **and** written authorization from the permit issuing agency(s) is required **prior to** switching to a long-term use of ADW for the duration of the permit.

Written requests for use of ADW must be mailed with supporting documentation to the following addresses:

Director
Office of Ecosystem Protection (CAA)
U.S. Environmental Protection Agency, Region 1
Five Post Office Square, Suite 100
Mail Code OEP06-5
Boston, MA 02109-3912

and

Manager
Water Technical Unit (SEW)
U.S. Environmental Protection Agency
Five Post Office Square, Suite 100
Mail Code OES04-4
Boston, MA 02109-3912

Note: USEPA Region 1 retains the right to modify any part of the alternate dilution water policy stated in this protocol at any time. Any changes to this policy will be documented in the annual DMR posting.

See the most current annual DMR instructions which can be found on the EPA Region 1 website at http://www.epa.gov/region1/enforcementandassistance/dmr.html for further important details on alternate dilution water substitution requests.

V. TEST CONDITIONS AND TEST ACCEPTABILITY CRITERIA

EPA Region 1 requires tests be performed using four replicates of each control and effluent concentration because the non-parametric statistical tests cannot be used with data from fewer replicates. The following tables summarize the accepted Americamysis and Menidia toxicity test conditions and test acceptability criteria:

EPA NEW ENGLAND EFFLUENT TOXICITY TEST CONDITIONS FOR THE MYSID, AMERICAMYSIS BAHIA 48 HOUR TEST[1]

1. Test type	48hr Static, non-renewal
2. Salinity	25ppt ± 10 percent for all dilutions by adding dry ocean salts
3. Temperature (^{o}C)	20^{o}C ± 1^{o}C or 25^{o}C ± 1^{o}C, temperature must not deviate by more than 3^{o}C during test
4. Light quality	Ambient laboratory illumination
5. Photoperiod	16 hour light, 8 hour dark
6. Test chamber size	250 ml (minimum)
7. Test solution volume	200 ml/replicate (minimum)
8. Age of test organisms	1-5 days, < 24 hours age range
9. No. Mysids per test chamber	10
10. No. of replicate test chambers per treatment	4
11. Total no. Mysids per test concentration	40
12. Feeding regime	Light feeding using concentrated Artemia naupli while holding prior to initiating the test
13. Aeration [2]	None
14. Dilution water	5-30 ppt, +/- 10%; Natural seawater, or deionized water mixed with artificial sea salts
15. Dilution factor	≥ 0.5
16. Number of dilutions [3]	5 plus a control. An additional dilution at the permitted effluent concentration (%

	effluent) is required if it is not included in the dilution series.
17. Effect measured	Mortality - no movement of body appendages on gentle prodding
18. Test acceptability	90% or greater survival of test organisms in control solution
19. Sampling requirements	For on-site tests, samples are used within 24 hours of the time that they are removed from the sampling device. For off-site tests, samples must be first used within 36 hours of collection.
20. Sample volume required	Minimum 1 liter for effluents and 2 liters for receiving waters

Footnotes:

[1] Adapted from EPA 821-R-02-012.

[2] If dissolved oxygen falls below 4.0 mg/L, aerate at rate of less than 100 bubbles/min. Routine D.O. checks are recommended.

[3] When receiving water is used for dilution, an additional control made up of standard laboratory dilution water (0% effluent) is required.

EPA NEW ENGLAND TOXICITY TEST CONDITIONS FOR THE INLAND SILVERSIDE, MENIDIA BERYLLINA 48 HOUR TEST[1]

1. Test Type	48 hr Static, non-renewal
2. Salinity	25 ppt ± 10 % by adding dry ocean salts
3. Temperature	20°C ± 1°C or 25°C ± 1°C, temperature must not deviate by more than 3°C during test
4. Light Quality	Ambient laboratory illumination
5. Photoperiod	16 hr light, 8 hr dark
6. Size of test vessel	250 mL (minimum)
7. Volume of test solution	200 mL/replicate (minimum)
8. Age of fish	9-14 days; 24 hr age range
9. No. fish per chamber	10 (not to exceed loading limits)
10. No. of replicate test vessels per treatment	4
11. Total no. organisms per concentration	40
12. Feeding regime	Light feeding using concentrated Artemia nauplii while holding prior to initiating the test
13. Aeration[2]	None
14. Dilution water	5-32 ppt, +/- 10% ; Natural seawater, or deionized water mixed with artificial sea salts.
15. Dilution factor	≥ 0.5
16. Number of dilutions[3]	5 plus a control. An additional dilution at the permitted concentration (% effluent) is required if it is not included in the dilution series.
17. Effect measured	Mortality-no movement on gentle prodding.

18. Test acceptability	90% or greater survival of test organisms in control solution.
19. Sampling requirements	For on-site tests, samples must be used within 24 hours of the time they are removed from the sampling device. Off-site test samples must be used within 36 hours of collection.
20. Sample volume required	Minimum 1 liter for effluents and 2 liters for receiving waters.

Footnotes:

[1] Adapted from EPA 821-R-02-012.

[2] If dissolved oxygen falls below 4.0 mg/L, aerate at rate of less than 100 bubbles/min. Routine D.O. checks recommended.

[3] When receiving water is used for dilution, an additional control made up of standard laboratory dilution water (0% effluent) is required.

V.1. Test Acceptability Criteria

If a test does not meet TAC the test must be repeated with fresh samples within 30 days of the initial test completion date.

V.2. Use of Reference Toxicity Testing

Reference toxicity test results and applicable control charts must be included in the toxicity testing report.

In general, if reference toxicity test results fall outside the control limits established by the laboratory for a specific test endpoint, a reason or reasons for this excursion must be evaluated, correction made and reference toxicity tests rerun as necessary as prescribed below.

If a test endpoint value exceeds the control limits at a frequency of more than one out of twenty then causes for the reference toxicity test failure must be examined and if problems are identified corrective action taken. The reference toxicity test must be repeated during the same month in which the exceedance occurred.

If two consecutive reference toxicity tests fall outside control limits, the possible cause(s) for the exceedance must be examined, corrective actions taken and a repeat of the reference toxicity test must take place immediately. Actions taken to resolve the problem must be reported.

V.2.a. Use of Concurrent Reference Toxicity Testing

In the case where concurrent reference toxicity testing is required due to a low frequency of testing with a particular method, if the reference toxicity test results fall slightly outside of laboratory established control limits, but the primary test met the TAC, the results of the primary test will be considered acceptable. However, if the results of the concurrent test fall well outside the established **upper** control limits i.e. ≥3 standard deviations for IC25s and LC50 values and ≥ two concentration intervals for NOECs or NOAECs, and even though the primary test meets TAC, the primary test will be considered unacceptable and must be repeated.

VI. CHEMICAL ANALYSIS

At the beginning of the static acute test, pH, salinity, and temperature must be measured at the beginning and end of each 24 hour period in each dilution and in the controls. The following chemical analyses shall be performed for each sampling event.

Parameter	Effluent	Diluent	Minimum Level for effluent[*1] (mg/L)
pH	x	x	---
Salinity	x	x	ppt(o/oo)
Total Residual Chlorine [*2]	x	x	0.02
Total Solids and Suspended Solids	x	x	---
Ammonia	x	x	0.1
Total Organic Carbon	x	x	0.5
Total Metals			
Cd	x	x	0.0005
Pb	x	x	0.0005
Cu	x	x	0.003
Zn	x	x	0.005
Ni	x	x	0.005

Superscript:

[*1] These are the minimum levels for effluent (fresh water) samples. Tests on diluents (marine waters) shall be conducted using the Part 136 methods that yield the lowest MLs.

[*2] Either of the following methods from the 18th Edition of the APHA Standard Methods for the Examination of Water and Wastewater must be used for these analyses:

-Method 4500-Cl E Low Level Amperometric Titration (the preferred method);
-Method 4500-CL G DPD Photometric Method.

VII. TOXICITY TEST DATA ANALYSIS

LC50 Median Lethal Concentration

An estimate of the concentration of effluent or toxicant that is lethal to 50% of the test organisms during the time prescribed by the test method.

Methods of Estimation:

- Probit Method
- Spearman-Karber
- Trimmed Spearman-Karber
- Graphical

See flow chart in Figure 6 on page 73 of EPA 821-R-02-012 for appropriate method to use on a given data set.

No Observed Acute Effect Level (NOAEL)

See flow chart in Figure 13 on page 87 of EPA 821-R-02-012.

VIII. TOXICITY TEST REPORTING

A report of results must include the following:

- Toxicity Test summary sheet(s) (Attachment F to the DMR Instructions) which includes:
    - Facility name
    - NPDES permit number
    - Outfall number
    - Sample type
    - Sampling method
    - Effluent TRC concentration
    - Dilution water used
    - Receiving water name and sampling location
    - Test type and species
    - Test start date
    - Effluent concentrations tested (%) and permit limit concentration
    - Applicable reference toxicity test date and whether acceptable or not
    - Age, age range and source of test organisms used for testing
    - Results of TAC review for all applicable controls
    - Permit limit and toxicity test results
    - Summary of any test sensitivity and concentration response evaluation that was conducted

Please note: The NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs) are available on EPA's website at http://www.epa.gov/NE/enforcementandassistance/dmr.html

In addition to the summary sheets the report must include:

- A brief description of sample collection procedures;
- Chain of custody documentation including names of individuals collecting samples, times and dates of sample collection, sample locations, requested analysis and lab receipt with time and date received, lab receipt personnel and condition of samples upon receipt at the lab(s);
- Reference toxicity test control charts;
- All sample chemical/physical data generated, including minimum levels (MLs) and analytical methods used;
- All toxicity test raw data including daily ambient test conditions, toxicity test chemistry, sample dechlorination details as necessary, bench sheets and statistical analysis;
- A discussion of any deviations from test conditions; and
- Any further discussion of reported test results, statistical analysis and concentration-response relationship and test sensitivity review per species per endpoint.

NPDES PART II STANDARD CONDITIONS
(April 26, 2018)[1]

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[1] Updated July 17, 2018 to fix typographical errors.

A. GENERAL REQUIREMENTS

1. Duty to Comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA or Act) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

a. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

b. Penalties for Violations of Permit Conditions: The Director will adjust the civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (83 Fed. Reg. 1190-1194 (January 10, 2018) and the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note. See Pub. L.114-74, Section 701 (Nov. 2, 2015)). These requirements help ensure that EPA penalties keep pace with inflation. Under the above-cited 2015 amendments to inflationary adjustment law, EPA must review its statutory civil penalties each year and adjust them as necessary.

(1) Criminal Penalties

(a) *Negligent Violations.* The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of not less than $2,500 nor more than $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation or by imprisonment of not more than 2 years, or both.

(b) *Knowing Violations.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

(c) *Knowing Endangerment.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury shall upon conviction be subject to a fine of not more than $250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing

endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

(d) *False Statement.* The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(2) *Civil Penalties*. The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act, the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

(3) *Administrative Penalties*. The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty as follows:

(a) *Class I Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act, the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

(b) *Class II Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

2. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit

condition.

3. Duty to Provide Information

The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

4. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from responsibilities, liabilities or penalties to which the Permittee is or may be subject under Section 311 of the CWA, or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

5. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

6. Confidentiality of Information

a. In accordance with 40 C.F.R. Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 C.F.R. Part 2 (Public Information).

b. Claims of confidentiality for the following information will be denied:

(1) The name and address of any permit applicant or Permittee;
(2) Permit applications, permits, and effluent data.

c. Information required by NPDES application forms provided by the Director under 40 C.F.R. § 122.21 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

7. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit. The Permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

8. State Authorities

Nothing in Parts 122, 123, or 124 precludes more stringent State regulation of any activity

covered by the regulations in 40 C.F.R. Parts 122, 123, and 124, whether or not under an approved State program.

9. Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Not a Defense

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Duty to Mitigate

The Permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

4. Bypass

a. Definitions

(1) *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility.

(2) *Severe property damage* means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. *Bypass not exceeding limitations.* The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this Section.

c. Notice

(1) *Anticipated bypass*. If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass. As of December 21, 2020 all notices submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or if required to do so by state law.

(2) *Unanticipated bypass*. The Permittee shall submit notice of an unanticipated bypass as required in paragraph D.1.e. of this part (24-hour notice). As of December 21, 2020 all notices submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or required to do so by law.

d. *Prohibition of bypass.*

(1) Bypass is prohibited, and the Director may take enforcement action against a Permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(c) The Permittee submitted notices as required under paragraph 4.c of this Section.

(2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 4.d of this Section.

5. Upset

a. *Definition*. *Upset* means an exceptional incident in which there is an unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or

improper operation.

b. *Effect of an upset.* An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph B.5.c. of this Section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. *Conditions necessary for a demonstration of upset.* A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the Permittee can identify the cause(s) of the upset;
(2) The permitted facility was at the time being properly operated; and
(3) The Permittee submitted notice of the upset as required in paragraph D.1.e.2.b. (24-hour notice).
(4) The Permittee complied with any remedial measures required under B.3. above.

d. *Burden of proof.* In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.

C. MONITORING REQUIREMENTS

1. Monitoring and Records

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

b. Except for records of monitoring information required by this permit related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least 5 years (or longer as required by 40 C.F.R. § 503), the Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

c. Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;
(2) The individual(s) who performed the sampling or measurements;
(3) The date(s) analyses were performed;
(4) The individual(s) who performed the analyses;
(5) The analytical techniques or methods used; and
(6) The results of such analyses.

d. Monitoring must be conducted according to test procedures approved under 40 C.F.R. § 136 unless another method is required under 40 C.F.R. Subchapters N or O.

e. The Clean Water Act provides that any person who falsifies, tampers with, or

knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

2. Inspection and Entry

The Permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

D. REPORTING REQUIREMENTS

1. Reporting Requirements

a. *Planned Changes*. The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 C.F.R. § 122.29(b); or

(2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements at 40 C.F.R. § 122.42(a)(1).

(3) The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. *Anticipated noncompliance*. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

c. *Transfers.* This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Clean Water Act. *See* 40 C.F.R. § 122.61; in some cases, modification or revocation and reissuance is mandatory.

d. *Monitoring reports*. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices. As of December 21, 2016 all reports and forms submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or if required to do so by State law.

(2) If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 C.F.R. § 136, or another method required for an industry-specific waste stream under 40 C.F.R. Subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

(3) Calculations for all limitations which require averaging or measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

e. *Twenty-four hour reporting.*

(1) The Permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written report shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. As of December 21, 2020 all

reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require Permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section.

(2) The following shall be included as information which must be reported within 24 hours under this paragraph.

(a) Any unanticipated bypass which exceeds any effluent limitation in the permit. *See* 40 C.F.R. § 122.41(g).
(b) Any upset which exceeds any effluent limitation in the permit.
(c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. *See* 40 C.F.R. § 122.44(g).

(3) The Director may waive the written report on a case-by-case basis for reports under paragraph D.1.e. of this Section if the oral report has been received within 24 hours.

f. *Compliance Schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

g. *Other noncompliance.* The Permittee shall report all instances of noncompliance not reported under paragraphs D.1.d., D.1.e., and D.1.f. of this Section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph D.1.e. of this Section. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in paragraph D.1.e. and the applicable required data in Appendix A to 40 C.F.R. Part 127. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), §122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require Permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this Section.

h. *Other information.* Where the Permittee becomes aware that it failed to submit any

relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

i. *Identification of the initial recipient for NPDES electronic reporting data*. The owner, operator, or the duly authorized representative of an NPDES-regulated entity is required to electronically submit the required NPDES information (as specified in Appendix A to 40 C.F.R. Part 127) to the appropriate initial recipient, as determined by EPA, and as defined in 40 C.F.R. § 127.2(b). EPA will identify and publish the list of initial recipients on its Web site and in the FEDERAL REGISTER, by state and by NPDES data group (see 40 C.F.R. § 127.2(c) of this Chapter). EPA will update and maintain this listing.

2. Signatory Requirement

a. All applications, reports, or information submitted to the Director shall be signed and certified. *See* 40 C.F.R. §122.22.

b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

3. Availability of Reports.

Except for data determined to be confidential under paragraph A.6. above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Director. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA.

E. DEFINITIONS AND ABBREVIATIONS

1. General Definitions

For more definitions related to sludge use and disposal requirements, see EPA Region 1's NPDES Permit Sludge Compliance Guidance document (4 November 1999, modified to add regulatory definitions, April 2018).

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations means all, State, interstate, and federal standards and limitations to which a "discharge," a "sewage sludge use or disposal practice," or a related activity is subject under the CWA, including "effluent limitations," water quality standards, standards of performance, toxic effluent standards or prohibitions, "best management practices," pretreatment standards, and "standards for sewage sludge use or disposal" under Sections 301, 302, 303, 304, 306, 307, 308, 403 and 405 of the CWA.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in

"approved States," including any approved modifications or revisions.

Approved program or *approved State* means a State or interstate program which has been approved or authorized by EPA under Part 123.

Average monthly discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

Average weekly discharge limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

Best Management Practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Bypass see B.4.a.1 above.

C-NOEC or *"Chronic (Long-term Exposure Test) – No Observed Effect Concentration" means* the highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specified time of observation.

Class I sludge management facility is any publicly owned treatment works (POTW), as defined in 40 C.F.R. § 501.2, required to have an approved pretreatment program under 40 C.F.R. § 403.8 (a) (including any POTW located in a State that has elected to assume local program responsibilities pursuant to 40 C.F.R. § 403.10 (e)) and any treatment works treating domestic sewage, as defined in 40 C.F.R. § 122.2, classified as a Class I sludge management facility by the EPA Regional Administrator, or, in the case of approved State programs, the Regional Administrator in conjunction with the State Director, because of the potential for its sewage sludge use or disposal practice to affect public health and the environment adversely.

Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

Continuous discharge means a "discharge" which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or similar activities.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483and Public Law 97-117, 33 U.S.C. 1251 *et seq*.

CWA and regulations means the Clean Water Act (CWA) and applicable regulations promulgated thereunder. In the case of an approved State program, it includes State program requirements.

Daily Discharge means the "discharge of a pollutant" measured during a calendar day or any

other 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Direct Discharge means the "discharge of a pollutant."

Director means the Regional Administrator or an authorized representative. In the case of a permit also issued under Massachusetts' authority, it also refers to the Director of the Division of Watershed Management, Department of Environmental Protection, Commonwealth of Massachusetts.

Discharge

(a) When used without qualification, *discharge* means the "discharge of a pollutant."

(b) As used in the definitions for "interference" and "pass through," *discharge* means the introduction of pollutants into a POTW from any non-domestic source regulated under Section 307(b), (c) or (d) of the Act.

Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by Permittees. DMRs must be used by "approved States" as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Discharge of a pollutant means:

(a) Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or

(b) Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any "indirect discharger."

Effluent limitation means any restriction imposed by the Director on quantities, discharge rates, and concentrations of "pollutants" which are "discharged" from "point sources" into "waters of the United States," the waters of the "contiguous zone," or the ocean.

Effluent limitation guidelines means a regulation published by the Administrator under section 304(b) of CWA to adopt or revise "effluent limitations."

Environmental Protection Agency ("EPA") means the United States Environmental Protection

Agency.

Grab Sample means an individual sample collected in a period of less than 15 minutes.

Hazardous substance means any substance designated under 40 C.F.R. Part 116 pursuant to Section 311 of CWA.

Incineration is the combustion of organic matter and inorganic matter in sewage sludge by high temperatures in an enclosed device.

Indirect discharger means a nondomestic discharger introducing "pollutants" to a "publicly owned treatment works."

Interference means a discharge (see definition above) which, alone or in conjunction with a discharge or discharges from other sources, both:

(a) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

(b) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resources Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SDWA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile.

Land application is the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Land application unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for agricultural purposes or for treatment and disposal.

LC_{50} means the concentration of a sample that causes mortality of 50% of the test population at a specific time of observation. The LC_{50} = 100% is defined as a sample of undiluted effluent.

Maximum daily discharge limitation means the highest allowable "daily discharge."

Municipal solid waste landfill (MSWLF) unit means a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 C.F.R. § 257.2. A MSWLF unit also may receive other types of RCRA Subtitle D wastes, such as commercial solid waste, nonhazardous sludge, very small quantity generator waste and industrial solid waste. Such a landfill may be

publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit or a lateral expansion. A construction and demolition landfill that receives residential lead-based paint waste and does not receive any other household waste is not a MSWLF unit.

Municipality

(a) When used without qualification *municipality* means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of CWA.

(b) As related to sludge use and disposal, *municipality* means a city, town, borough, county, parish, district, association, or other public body (including an intermunicipal Agency of two or more of the foregoing entities) created by or under State law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge management; or a designated and approved management Agency under Section 208 of the CWA, as amended. The definition includes a special district created under State law, such as a water district, sewer district, sanitary district, utility district, drainage district, or similar entity, or an integrated waste management facility as defined in Section 201 (e) of the CWA, as amended, that has as one of its principal responsibilities the treatment, transport, use or disposal of sewage sludge.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the CWA. The term includes an "approved program."

New Discharger means any building, structure, facility, or installation:

(a) From which there is or may be a "discharge of pollutants;"

(b) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979;

(c) Which is not a "new source;" and

(d) Which has never received a finally effective NPDES permit for discharges at that "site."

This definition includes an "indirect discharger" which commences discharging into "waters of the United States" after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a "site" for which it does not have a permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a "site" under EPA's permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Director in the issuance of a final permit to be in an area of biological concern. In determining whether an area is an area of biological concern, the Director shall consider the factors specified in 40 C.F.R. §§ 125.122 (a) (1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a "new discharger" only for the duration of its discharge in an area of biological concern.

New source means any building, structure, facility, or installation from which there is or may be a "discharge of pollutants," the construction of which commenced:

(a) After promulgation of standards of performance under Section 306 of CWA which are applicable to such source, or

(b) After proposal of standards of performance in accordance with Section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.

NPDES means "National Pollutant Discharge Elimination System."

Owner or operator means the owner or operator of any "facility or activity" subject to regulation under the NPDES programs.

Pass through means a Discharge (see definition above) which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved State" to implement the requirements of Parts 122, 123, and 124. "Permit" includes an NPDES "general permit" (40 C.F.R § 122.28). "Permit" does not include any permit which has not yet been the subject of final agency action, such as a "draft permit" or "proposed permit."

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Person who prepares sewage sludge is either the person who generates sewage sludge during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge.

pH means the logarithm of the reciprocal of the hydrogen ion concentration measured at 25° Centigrade or measured at another temperature and then converted to an equivalent value at 25° Centigrade.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff (see 40 C.F.R. § 122.3).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials

(except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq*.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

(a) Sewage from vessels; or

(b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes is approved by the authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

Primary industry category means any industry category listed in the NRDC settlement agreement (*Natural Resources Defense Council et al. v. Train*, 8 E.R.C. 2120 (D.D.C. 1976), *modified* 12 E.R.C. 1833 (D.D.C. 1979)); also listed in Appendix A of 40 C.F.R. Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operator is not the operator of the treatment works and (b) not a "POTW."

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works (POTW) means a treatment works as defined by Section 212 of the Act, which is owned by a State or municipality (as defined by Section 504(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in Section 502(4) of the Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

Regional Administrator means the Regional Administrator, EPA, Region I, Boston, Massachusetts.

Secondary industry category means any industry which is not a "primary industry category."

Septage means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

Sewage Sludge means any solid, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced waste water treatment, scum, septage, portable toilet pumpings, type III marine sanitation device pumpings (33 C.F.R. Part 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

Sewage sludge incinerator is an enclosed device in which only sewage sludge and auxiliary fuel are fired.

Sewage sludge unit is land on which only sewage sludge is placed for final disposal. This does

not include land on which sewage sludge is either stored or treated. Land does not include waters of the United States, as defined in 40 C.F.R. § 122.2.

Sewage sludge use or disposal practice means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

Significant materials includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substance designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

Significant spills includes, but is not limited to, releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 C.F.R. §§ 110.10 and 117.21) or Section 102 of CERCLA (*see* 40 C.F.R. § 302.4).

Sludge-only facility means any "treatment works treating domestic sewage" whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to section 405(d) of the CWA, and is required to obtain a permit under 40 C.F.R. § 122.1(b)(2).

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or an Indian Tribe as defined in the regulations which meets the requirements of 40 C.F.R. § 123.31.

Store or storage of sewage sludge is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm water discharge associated with industrial activity means the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant.

Surface disposal site is an area of land that contains one or more active sewage sludge units.

Toxic pollutant means any pollutant listed as toxic under Section 307(a)(1) or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing Section 405(d) of the CWA.

Treatment works treating domestic sewage means a POTW or any other sewage sludge or waste water treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices.

For purposes of this definition, "domestic sewage" includes waste and waste water from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under Section 405(f) of the CWA, the Director may designate any person subject to the standards for sewage sludge use and

disposal in 40 C.F.R. Part 503 as a "treatment works treating domestic sewage," where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 C.F.R. Part 503.

Upset see B.5.a. above.

Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

Waste pile or *pile* means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

Waters of the United States or waters of the U.S. means:

(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(b) All interstate waters, including interstate "wetlands;"

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands", sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

    (1) Which are or could be used by interstate or foreign travelers for recreational or other purpose;

    (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

    (3) Which are used or could be used for industrial purposes by industries in interstate commerce;

(d) All impoundments of waters otherwise defined as waters of the United States under this definition;

(e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;

(f) The territorial sea; and

(g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 C.F.R. § 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland.

Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole Effluent Toxicity (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test.

*Zone of Initial Dilution (*ZID) means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports, provided that the ZID may not be larger than allowed by mixing zone restrictions in applicable water quality standards.

2. Commonly Used Abbreviations

BOD	Five-day biochemical oxygen demand unless otherwise specified
CBOD	Carbonaceous BOD
CFS	Cubic feet per second
COD	Chemical oxygen demand
Chlorine	
Cl_2	Total residual chlorine
TRC	Total residual chlorine which is a combination of free available chlorine (FAC, see below) and combined chlorine (chloramines, etc.)
TRO	Total residual chlorine in marine waters where halogen compounds are present
FAC	Free available chlorine (aqueous molecular chlorine, hypochlorous acid, and hypochlorite ion)
Coliform	
Coliform, Fecal	Total fecal coliform bacteria
Coliform, Total	Total coliform bacteria
Cont.	Continuous recording of the parameter being monitored, i.e. flow, temperature, pH, etc.
Cu. M/day or M^3/day	Cubic meters per day
DO	Dissolved oxygen

kg/day	Kilograms per day
lbs/day	Pounds per day
mg/L	Milligram(s) per liter
mL/L	Milliliters per liter
MGD	Million gallons per day
Nitrogen	
Total N	Total nitrogen
NH_3-N	Ammonia nitrogen as nitrogen
NO_3-N	Nitrate as nitrogen
NO_2-N	Nitrite as nitrogen
NO_3-NO_2	Combined nitrate and nitrite nitrogen as nitrogen
TKN	Total Kjeldahl nitrogen as nitrogen
Oil & Grease	Freon extractable material
PCB	Polychlorinated biphenyl
Surfactant	Surface-active agent
Temp. °C	Temperature in degrees Centigrade
Temp. °F	Temperature in degrees Fahrenheit
TOC	Total organic carbon
Total P	Total phosphorus
TSS or NFR	Total suspended solids or total nonfilterable residue
Turb. or Turbidity	Turbidity measured by the Nephelometric Method (NTU)
µg/L	Microgram(s) per liter
WET	"Whole effluent toxicity"
ZID	Zone of Initial Dilution

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES PURSUANT TO THE CLEAN WATER ACT (CWA)

NPDES PERMIT NUMBER: NH0001490

PUBLIC NOTICE START AND END DATES: June 13, 2019 – July 12, 2019

NAME AND MAILING ADDRESS OF APPLICANT:

SubCom Cable Systems, LLC
100 Piscataqua Drive
Newington, NH 03801

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

SubCom Cable Systems, LLC
100 Piscataqua Drive
Newington, NH 03801

RECEIVING WATER AND CLASSIFICATION:

Piscataqua River (USGS Hydrologic Basin Code 01060003)
Piscataqua Watershed
Class B

SIC CODE: 3357 (Drawing and Insulating of Nonferrous Wire)
3669 (Communications Equipment)

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Appendices

1.0 Proposed Action

SubCom Cable Systems, LLC (the "Permittee"), formally known as Tyco Electronics Integrated Cable Systems, has applied to the U.S. Environmental Protection Agency (EPA) for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit to discharge pollutants from SubCom Cable Systems (the "Facility") into the Piscataqua River. The Facility manufactures underwater fiber optic telecommunication cables.

The permit currently in effect was issued on April 15, 2010 with an effective date of July 1, 2010 and expired on June 30, 2015 (the "2010 Permit"). The Permittee filed an application for permit reissuance with EPA dated October 16, 2014, as required by 40 Code of Federal Regulations (C.F.R.) § 122.6. Since the permit application was deemed timely and complete by EPA on November 20, 2014, the Facility's 2010 Permit has been administratively continued pursuant to 40 C.F.R. § 122.6 and § 122.21(d). EPA and the State conducted a site visit on February 26, 2019.

This NPDES Permit is issued by EPA under federal law. New Hampshire construes Title 50, Water Management and Protection, Chapters 485-A, Water Pollution and Waste Disposal, to authorize the New Hampshire Department of Environmental Services (NHDES) to "consider" a federal NPDES permit to be a State surface water discharge permit. As such, all the terms and conditions of the permit may, therefore, be incorporated into and constitute a discharge permit issued by NHDES.

2.0 Statutory and Regulatory Authority

Congress enacted the Clean Water Act (CWA), "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." *See* CWA § 101(a). To achieve this objective, the CWA makes it unlawful for any person to discharge any pollutant into the waters of the United States from any point source, except as authorized by specific permitting sections of the CWA, one of which is § 402. *See* CWA §§ 301(a), 402(a). Section 402(a) established one of the CWA's principal permitting programs, the NPDES Permit Program. Under this section, EPA may "issue a permit for the discharge of any pollutant or combination of pollutants" in accordance with certain conditions. *See* CWA § 402(a). NPDES permits generally contain discharge limitations and establish related monitoring and reporting requirements. *See* CWA § 402(a)(1) and (2). The regulations governing EPA's NPDES permit program are generally found in 40 C.F.R. Parts 122, 124, 125, and 136.

Section 301 and 306 of the CWA provides for two types of effluent limitations to be included in NPDES permits: "technology-based" effluent limitations (TBELs) and "water quality-based" effluent limitations (WQBELs). *See* CWA §§ 301, 304(b) and 306; 40 C.F.R. Parts 122, 125, 131 and 401.

2.1 Technology-Based Requirements

Technology-based treatment requirements represent the minimum level of control that must be imposed under §§ 301(b), 306 and 402 of the CWA to meet best practicable control technology currently available (BPT) for certain conventional pollutants and some metals, best conventional

control technology (BCT) for other conventional pollutants, best available technology economically achievable (BAT) for toxic and non-conventional pollutants and New Source Performance Standards (NSPS) based on the best available demonstrated control technology (BADT) for new sources. *See* 40 C.F.R. § 125 Subpart A and 40 C.F.R. § 401.12.

Subpart A of 40 C.F.R. Part 125 establishes criteria and standards for the imposition of technology-based treatment requirements in permits under § 301(b) of the CWA, including the application of EPA promulgated Effluent Limitation Guidelines (ELGs) and case-by-case determinations of effluent limitations under § 402(a)(1) of the CWA. EPA promulgates NSPS under CWA § 306 and 40 C.F.R. § 401.12. *See also* 40 C.F.R. §§ 122.2 (definition of "new source") and 122.29.

In general, ELGs for non-POTW facilities must be complied with as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989. *See* 40 C.F.R. § 125.3(a)(2). Compliance schedules and deadlines not in accordance with the statutory provisions of the CWA cannot be authorized by a NPDES permit. *See* 40 C.F.R. § 122.47(a). In the absence of published technology-based effluent guidelines, the permit writer is authorized under § 402(a)(1)(B) of the CWA to establish effluent limitations on a case-by-case basis using best professional judgment (BPJ).

2.2 Water Quality-Based Requirements

The CWA and federal regulations also require that permit effluent limitations based on water quality considerations be established for point source discharges and/or cooling water withdrawals when such limitations are necessary to meet state or federal water quality standards that are applicable to the designated receiving water. This is necessary when less stringent TBELs would interfere with the attainment or maintenance of water quality criteria in the receiving water. *See* § 301(b)(1)(C) of the CWA and 40 C.F.R. §§ 122.44(d)(1), 122.44(d)(5), 125.84(e) and 125.94(i).

2.2.1 Water Quality Standards

The CWA requires that each state develop water quality standards (WQSs) for all water bodies within the State. *See* CWA § 303 and 40 C.F.R. §§ 131.10, 131.11, and 131.12. Generally, WQSs consist of three parts: 1) the designated use or uses assigned for a water body or a segment of a water body; 2) numeric or narrative water quality criteria sufficient to protect the assigned designated use(s); and 3) anti-degradation requirements to ensure that once a use is attained it will not be degraded and to protect high quality and National resource waters. *See* CWA § 303(c)(2)(A) and 40 C.F.R. § 131.12. The applicable State WQSs can be found in the New Hampshire Code of Administrative Rules, Surface Water Quality Regulations, Chapter Env-Wq 1700, *et seq*. *See also generally*, Title 50, Water Management and Protection, Chapter 485-A, Water Pollution and Waste Disposal.

As a matter of state law, state WQSs specify different water body classifications, each of which is associated with certain designated uses and numeric and narrative water quality criteria. When using chemical-specific numeric criteria to develop permit limits, acute and chronic aquatic life criteria and human health criteria are used and expressed in terms of maximum allowable in-

stream pollutant concentrations. In general, aquatic-life acute criteria are considered applicable to daily time periods (maximum daily limit) and aquatic-life chronic criteria are considered applicable to monthly time periods (average monthly limit). Chemical-specific human health criteria are typically based on lifetime chronic exposure and, therefore, are typically applicable to monthly average limits.

When permit effluent limits are necessary for a pollutant to meet narrative water quality criteria, the permitting authority must establish effluent limits in one of the following three ways: 1) based on a "calculated numeric criterion for the pollutant which the permitting authority demonstrates will attain and maintain applicable narrative water quality criteria and fully protect the designated use," 2) based on a "case-by-case basis" using CWA § 304(a) recommended water quality criteria, supplemented as necessary by other relevant information; or, 3) in certain circumstances, based on an indicator parameter. *See* 40 C.F.R. § 122.44(d)(1)(vi)(A-C).

2.2.2 Antidegradation

Federal regulations found at 40 C.F.R. § 131.12 require states to develop and adopt a statewide antidegradation policy that maintains and protects existing in-stream water uses and the level of water quality necessary to protect these existing uses. In addition, the antidegradation policy ensures maintenance of high-quality waters which exceed levels necessary to support propagation of fish, shellfish, and wildlife, and to support recreation in and on the water, unless the State finds that allowing degradation is necessary to accommodate important economic or social development in the area in which the waters are located.

The New Hampshire Antidegradation Policy, found at Env-Wq 1708, applies to any new or increased activity that would lower water quality or affect existing or designated uses, including increased loadings to a water body from an existing activity. The antidegradation regulations focus on protecting high quality waters and maintaining water quality necessary to protect existing uses. Discharges that cause "significant degradation" are defined in NH WQS (Env-Wq 1708.09(a)) as those that use 20% or more of the remaining assimilative capacity for a water quality parameter in terms of either concentration or mass of pollutants or flow rate for water quantity. When NHDES determines that a proposed increase would cause a significant increase, the applicant must provide documentation to demonstrate that the lowering of water quality is necessary, that it will provide net economic or social benefit in the area in which the water body is located, and that the benefits of the activity outweigh the environmental impact caused by the reduction in water quality. *See* Env-Wq 1708.10(b).

This permit is being reissued with effluent limitations sufficiently stringent to satisfy the state's antidegradation requirements, including the protection of existing uses of the receiving water.

2.2.3 Assessment and Listing of Waters and Total Maximum Daily Loads

The objective of the CWA is to restore and maintain the chemical, physical and biological integrity of the Nation's waters. To meet this goal, the CWA requires states to develop information on the quality of their water resources and report this information to EPA, the U.S. Congress, and the public. To this end, EPA released guidance on November 19, 2001, for the preparation of an integrated "List of Waters" that could combine reporting elements of both §

305(b) and § 303(d) of the CWA. The integrated list format allows states to provide the status of all their assessed waters in one list. States choosing this option must list each waterbody or segment in one of the following five categories: 1) Unimpaired and not threatened for all designated uses; 2) Unimpaired waters for some uses and not assessed for others; 3) Insufficient information to make assessments for any uses; 4) Impaired or threatened for one or more uses but not requiring the calculation of a Total Maximum Daily Load (TMDL); and 5) Impaired or threatened for one or more uses and requiring a TMDL.

A TMDL is a planning tool and potential starting point for restoration activities with the ultimate goal of attaining water quality standards. A TMDL essentially provides a pollution budget designed to restore the health of an impaired water body. A TMDL typically identifies the source(s) of the pollutant from direct and indirect discharges, determines the maximum load of the pollutant that can be discharged to a specific waterbody while maintaining WQSs for designated uses, and allocates that load to the various pollutant sources, including point source discharges, subject to NPDES permits. *See* 40 C.F.R. § 130.7.

For impaired waters where a TMDL has been developed for a particular pollutant and the TMDL includes a waste load allocation for a NPDES permitted discharge, the effluent limit in the permit may not exceed the waste load allocation. *See* 40 C.F.R. § 122.44(d)(1)(vii)(B).

2.2.4 Reasonable Potential

Pursuant to CWA § 301(b)(1)(C) and 40 C.F.R. § 122.44(d)(1), NPDES permits must contain any requirements in addition to TBELs that are necessary to achieve water quality standards established under § 303 of the CWA. *See also* 33 U.S.C. § 1311(b)(1)(C). In addition, limitations "must control any pollutant or pollutant parameter (conventional, non-conventional, or toxic) which the permitting authority determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard, including State narrative criteria for water quality." 40 C.F.R. § 122.44(d)(1)(i). To determine if the discharge causes, or has the reasonable potential to cause, or contribute to an excursion above any WQS, EPA considers: 1) existing controls on point and non-point sources of pollution; 2) the variability of the pollutant or pollutant parameter in the effluent; 3) the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity); and 4) where appropriate, the dilution of the effluent by the receiving water. *See* 40 C.F.R. § 122.44(d)(1)(ii).

If the permitting authority determines that the discharge of a pollutant will cause, has the reasonable potential to cause, or contribute to an excursion above WQSs, the permit must contain WQBELs for that pollutant. *See* 40 C.F.R. § 122.44(d)(1)(i).

2.2.5 State Certification

EPA may not issue a permit unless the State Water Pollution Control Agency with jurisdiction over the receiving water(s) either certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate the State WQSs or the state waives, or is deemed by EPA to have waived, its right to certify. *See* 33 U.S.C. § 1341(a)(1). Regulations governing state certification are set forth in 40 C.F.R. §§

124.53 and 124.55. EPA has requested permit certification by the State pursuant to 40 C.F.R. § 124.53 and expects that the Draft Permit will be certified.

If the State believes that conditions more stringent than those contained in the Draft Permit are necessary to meet the requirements of either CWA §§ 208(e), 301, 302, 303, 306 and 307, or applicable requirements of State law, the State should include such conditions in its certification and, in each case, cite the CWA or State law provisions upon which that condition is based. Failure to provide such a citation waives the right to certify as to that condition. EPA includes properly supported State certification conditions in the NPDES permit. The only exception to this is that the permit conditions/requirements regulating sewage sludge management and implementing § 405(d) of the CWA are not subject to the State certification requirements. Reviews and appeals of limitations and conditions attributable to State certification shall be made through the applicable procedures of the State and may not be made through the EPA permit appeal procedures of 40 C.F.R. Part 124.

In addition, the State should provide a statement of the extent to which any condition of the Draft Permit can be made less stringent without violating the requirements of State law. Since the State's certification is provided prior to final permit issuance, any failure by the State to provide this statement waives the State's right to certify or object to any less stringent condition.

It should be noted that under CWA § 401, EPA's duty to defer to considerations of state law is intended to prevent EPA from relaxing any requirements, limitations or conditions imposed by state law. Therefore, "[a] State may not condition or deny a certification on the grounds that State law allows a less stringent permit condition." 40 C.F.R. § 124.55(c). In such an instance, the regulation provides that, "The Regional Administrator shall disregard any such certification conditions or denials as waivers of certification." *Id.* EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 C.F.R. §§ 122.4(d) and 122.44(d).

2.3 Effluent Flow Requirements

Generally, EPA uses effluent flow both to determine whether an NPDES permit needs certain effluent limitations and to calculate the effluent limitations themselves. EPA practice is to use effluent flow as a reasonable and important worst-case condition in EPA's reasonable potential and WQBEL calculations to ensure compliance with WQSs under § 301(b)(1)(C) of the CWA. Should the effluent flow exceed the flow assumed in these calculations, the in-stream dilution would be reduced, and the calculated effluent limitations might not be sufficiently protective (i.e., might not meet WQSs). Further, pollutants that do not have the reasonable potential to exceed WQSs at a lower discharge flow may have reasonable potential at a higher flow due to the decreased dilution. In order to ensure that the assumptions underlying EPA's reasonable potential analyses and permit effluent limitation derivations remain sound for the duration of the permit, EPA may ensure the validity of its "worst-case" effluent flow assumptions through imposition of permit conditions for effluent flow.[1] In this regard, the effluent flow limit is a

[1] EPA's regulations regarding "reasonable potential" require EPA to consider "where appropriate, the dilution of the effluent in the receiving water," which is a function of both the effluent flow and receiving water flow. 40 C.F.R.

component of WQBELs because the WQBELs are premised on a maximum level flow. The effluent flow limit is also necessary to ensure that other pollutants remain at levels that do not have a reasonable potential to exceed WQSs.

The limitation on effluent flow is within EPA's authority to condition a permit to carry out the objectives and satisfy the requirements of the CWA. *See* CWA §§ 402(a)(2) and 301(b)(1)(C); 40 C.F.R. §§ 122.4(a) and (d); 122.43 and 122.44(d). A condition on the discharge designed to ensure the validity of EPA's WQBELs and reasonable potential calculations is encompassed by the references to "condition" and "limitations" in CWA §§ 402 and 301 and its implementing regulations, as WQBELs are designed to assure compliance with applicable water quality regulations, including antidegradation requirements. Regulating the quantity of pollutants in the discharge through a restriction on the quantity of effluent is also consistent with the CWA.

In addition, as provided in Part II.B.1 of this permit and 40 C.F.R. § 122.41(e), the Permittee is required to properly operate and maintain all facilities and systems of treatment and control. Operating the Facility's wastewater treatment systems as designed includes operating within the Facility's design effluent flow. Thus, the effluent flow limitation is necessary to ensure proper facility operation, which in turn is a requirement applicable to all NPDES permits. *See* 40 C.F.R. § 122.41.

2.4 Monitoring and Reporting Requirements

2.4.1 Monitoring Requirements

Sections 308(a) and 402(a)(2) of the CWA and the implementing regulations at 40 C.F.R. Parts 122, 124, 125, and 136 authorize EPA to include monitoring and reporting requirements in NPDES permits.

The monitoring requirements included in this permit have been established to yield data representative of the Facility's discharges in accordance with CWA §§ 308(a) and 402(a)(2) of the CWA, and consistent with 40 C.F.R. §§ 122.41(j), 122.43(a), 122.44(i) and 122.48. The Draft Permit species routine sampling and analysis requirements to provide ongoing, representative information on the levels of regulated constituents in the wastewater discharges. The monitoring program is needed to enable EPA and the State to assess the characteristics of the Facility's effluent, whether Facility discharges are complying with permit limits, and whether different if permit conditions may be necessary in the future to ensure compliance with technology-based and water quality-based standards under the CWA. EPA and/or the state may use the results of the chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to § 304(a)(1) of the CWA, state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including, but not limited to, those pollutants listed in Appendix D of 40 C.F.R. Part 122.

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§122.44(d)(1)(ii). EPA guidance directs that this "reasonable potential" analysis be based on "worst-case" conditions. *See In re Washington Aqueduct Water Supply Sys., 11 E.A.D. 565, 584 (EAB 2004)*.

NPDES permits require that the approved analytical procedures found in 40 C.F.R. Part 136 be used for sampling and analysis unless other procedures are explicitly specified. Permits also include requirements necessary to comply with the *National Pollutant Discharge Elimination System (NPDES): Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting Rule*.[2] This Rule requires that where EPA-approved methods exist, NPDES applicants must use sufficiently sensitive EPA-approved analytical methods when quantifying the presence of pollutants in a discharge. Further, the permitting authority must prescribe that only sufficiently sensitive EPA-approved methods be used for analyses of pollutants or pollutant parameters under the permit. The NPDES regulations at 40 C.F.R. § 122.21(e)(3) (completeness), 40 C.F.R. § 122.44(i)(1)(iv) (monitoring requirements) and/or as cross referenced at 40 C.F.R. § 136.1(c) (applicability) indicate that an EPA-approved method is sufficiently sensitive where:

- The method minimum level[3] (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or
- In the case of permit applications, the ML is above the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or parameter in the discharge; or
- The method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O for the measured pollutant or pollutant parameter.

2.4.2 Reporting Requirements

The Draft Permit requires the Permittee to report monthly monitoring results to EPA and the State electronically using NetDMR. The Permittee must submit Discharge Monitoring Report (DMR) for each calendar month no later than the 15th day of the month following the completed reporting period.

NetDMR is a national web-based tool enabling regulated CWA permittees to submit DMRs electronically via a secure internet application to EPA through the Environmental Information Exchange Network. NetDMR has eliminated the need for participants to mail in paper forms to EPA under 40 C.F.R. §§ 122.41 and 403.12. NetDMR is accessible through EPA's Central Data Exchange at https://cdx.epa.gov/. Further information about NetDMR can be found on the EPA NetDMR support portal webpage.[4]

With the use of NetDMR, the Permittee is no longer required to submit hard copies of DMRs and reports to EPA and the State unless otherwise specified in the Draft Permit. In most cases,

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[2] Fed. Reg.49,001 (Aug. 19, 2014).
[3] The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor. EPA is considering the following terms related to analytical method sensitivity to be synonymous: "quantitation limit," "reporting limit," "level of quantitation," and "minimum level." *See* Federal Register, Vol. 79, No. 160, Tuesday, August 19, 2014; FR Doc. 2014–19557.
[4] https://netdmr.zendesk.com/hc/en-us

reports required under the permit shall be submitted to EPA as an electronic attachment through NetDMR. Certain exceptions are provided in the permit such as for providing written notifications required under the Part II Standard Conditions.

2.5 Standard Conditions

The standard conditions, included as Part II of the Draft Permit, are based on applicable regulations found in the Code of Federal Regulations.

2.6 Anti-backsliding

The CWA's anti-backsliding requirements prohibit a permit from being renewed, reissued or modified with less stringent limitations or conditions than those contained in a previous permit unless in compliance with one of the specified exceptions to those requirements. *See* §§ 402(o) and 303(d)(4) of the CWA and 40 C.F.R. § 122.44(l)(1) and (2). Anti-backsliding provisions apply to effluent limits based on technology, water quality, and/or state certification requirements.

All proposed limitations in the Draft Permit are at least as stringent as limitations included in the 2010 Permit unless specific conditions exist to justify one of the exceptions listed in 40 C.F.R. § 122.44(l)(2)(i) and/or in accordance with § 303(d)(4). Discussion of any less stringent and corresponding exceptions to anti-backsliding provisions is in sections that follow.

3.0 Description of Facility and Discharge

3.1 Location and Type of Facility

The Facility is located along the west bank of Piscataqua River on Piscataqua Drive in Newington, NH. A location map is provided in Figure 1. The main features of the Facility are manufacturing buildings; cable storage buildings including cable test tanks; parking lots, stormwater sewer system; pier, ship loading dock; and deep-water discharge pipe. A site plan is provided in Figure 2. All water used at the facility is supplied by the City of Portsmouth.

SubCom manufactures underwater fiber optic telecommunications systems. The fiber optic filaments are brought on site and enclosed in extruded polybutylene ("loose") tubes; wrapped with steel wire, enclosed in welded copper ("power conducting") tubes; and then coated with a final thick layer of extruded medium density polypropylene. Depending on the final location (e.g., ocean shelves, close to shore), some cables are further reinforced either by adding a layer of steel tubing and a layer of high density polyethylene (also known as "shark bite" cable, which reduces detection of electro-magnetic energy by certain shark species), or wrapped in layers of steel wire and coated with in the nylon/cotton twine, asphalt and nylon ribbon, also known as "armoring," which is used primarily for cable that will be located close to shore.

3.1.1 Effluent Limitation Guidelines

EPA has promulgated technology-based effluent limitation guidelines (ELGs) for Plastics Molding and Forming Point Source Category. *See* 40 C.F.R. Part 463. The applicable subpart of these regulations for SubCom Cable Systems, LLC is Subpart A - Contact Cooling and Heating Water Subcategory. Polymer pellets are heated to form coatings on fiber optic cables. The cables are then pulled through a series of cooling baths to gently cool the coating so that it does not become brittle and improves adhesion. No heating water is used in this operation.

For this subcategory, the ELGs promulgated on December 17, 1984, includes BAT effluent limitations guidelines (40 C.F.R. Part 463.13(b)) equal to the BPT effluent limitations guidelines at 40 C.F.R. Part 463.12. The effluent guideline limitations are presented in the following table:

Table 1: Subpart A - Contact Cooling and Heating Water Subcategory (BAT)

Concentration used to calculate BPT effluent limitations	
Pollutant or pollutant property	**Maximum for any 1 day (mg/l)**
BOD_5	26
Oil and grease	29
TSS	19
pH	([1])

[1]Within the range of 6.0 to 9.0 at all times.

The other subparts of the Plastics Molding and Forming Point Source Category cover washing/cleaning and finishing operations. Completed cables at SubCom are submerged in test tanks to perform diagnostic testing. These test tanks are not used for cooling, cleaning or finishing and therefore, the water discharged from them is not subject to the ELGs, contrary to previous permit determinations.

In addition, the Agency reserved the BAT effluent limitations guidelines for bis(2-ethylhexyl) phthalate at 40 C.F.R. Part 463.13(a). In the absence of BAT limitations guidelines for bis(2-ethylhexyl) phthalate, and in accordance with Section 402(a)(1)(B) of the CWA, EPA establishes effluent limitations on a case-by-case basis using best professional judgement (BPJ).

3.1.2 Measure of Production

In accordance with 40 C.F.R. § 122.45(b)(2) and 40 C.F.R. § 463.13(b), EPA based the calculation of BOD, Oil and Grease, and TSS effluent limitations on a reasonable measure of the average process water usage flow rate for the extruded cable contact cooling water. Final Outfall 007 includes wastewater flow from the extrusion contact cooling water and cable test tanks. Therefore, it is not the appropriate sampling location for meeting the ELGs requirements because the cable test tank water is not a wastestream covered by the ELGs. A new internal outfall

designated as internal Outfall 008[5] has been added to the Draft Permit. Compliance with the ELGs will be determined based on sampling results from this location. In addition, there are several air conditioners that discharge condensate to the extrusion cooling water transfer sump, but the contribution of flow is considered de minimis.

In this case, mass-based ELGs are expressed as an allowable mass of pollutant discharge per day and are directly related to the process flow rate. The effluent limitations are calculated by multiplying the average process water usage flow rate for the contact cooling process, as reported by the applicant, times the concentration listed in Table 1 above. The "average process water usage flow rate" is defined in 40 C.F.R. §463.11(a), as the volume of process water used per year divided by the number of days per year the process operates. The volume of process water used per year for the last five years provided by the Permittee are presented in the table below.

Table 2: Process Water Used Per Year

Year	Total Gallons
2014	1,663,280
2015	2,058,597
2016	1,787,303
2017	2,495,505
2018	3,351,861

EPA determined that the most appropriate yearly process water volume to use in determining effluent limits is 3,351,861 for year 2018 given that production is expected to remain the same or increase during the permit term (an additional "loose" tube extrusion line is expected to begin operating this year). The Permittee also communicated that extrusion processes occur every day of the year, except for Christmas and that this schedule is not expected to change. Therefore, 3,351,861 gallons divided by 364 days/year equals 9,208 gallons/day, which is the average process water usage flow rate used to calculate the permissible maximum daily, mass-based TBELs for BOD, Oil and Grease, and TSS at internal Outfall 008 in the Draft Permit.

BOD	26 mg/L x 9,208 gal/day x lbs/453,592mg x 3.785 L/gal =	2.0 lbs/day
Oil and Grease	29 mg/L x 9,208 gal/day x lbs/453,592mg x 3.785 L/gal =	2.2 lbs/day
TSS	19 mg/L x 9,208 gal/day x lbs/453,592mg x 3.785 L/gal =	1.5 lbs/day

3.2 Location and Type of Discharge

Outfall 007 is located at Latitude 43° 6' 11" Longitude 70° 47' 29" on the west bank of the Piscataqua River. The Permittee has requested authorization to discharge wastewater from the Facility through Outfall 007 into the Piscataqua River. The discharge consists of: extrusion contact cooling water, cable test tank water used to submerge the cables for diagnostic testing, and a de minimus amount of condensate water from air conditioning units. The Facility's

[5] This internal outfall location is the extrusion contact cooling water transfer sump, referred to as the "main holding tank" in Figure 3.

stormwater discharges are permitted under Multi-Sector Stormwater General Permit NHR05J00B.

Generally, extrusion processes force molten polymer under pressure through a shaping die to produce uniform cross-sectional area products such as pipe, tubing, sheet, film, and profile. In this case, low and medium density polymer pellets are heated to form a coating on fiber optic cables. The plastics used in the cable making process include:

- CELANEX 2001, EF-NAT, NATURAL, which is a polybutylene terephthalate or thermoplastic polyester used to encase the optic fibers in an extruded "loose" tube within the Unit Fiber Line (UFS);
- DHDA-1184 NT, which is medium density polypropylene thermoplastic used for the second extruded layer (much thicker than the loose tube layer) for each cable; and
- ALATHON® 9305TC, which is a high-density polyethylene copolymer used for reinforcing some cables that are being place where sharks might be located.

As previously described, the cables are pulled through a series of cooling baths to gently cool the extruded coating so that it does not become brittle and improve adhesion. The cooling water only comes in contact with the extruded polymer.

The process water throughout the facility collects either in the large extrusion contact cooling water sump or the cable test tank sump.. These sumps pump to the "highline" where the flows commingle and are sampled (Outfall 007). The highline consists of a 4-inch PVC pipe that gravity feeds approximately 450 feet to the end of the Facility's pier on the Piscataqua River. The PVC pipe converts to high density polyethylene and submerges vertically into the river approximately 26 feet below mean sea level. Approximately two feet from the river bottom, the discharge pipe has a tee connection, angled at 30° upward from horizontal, that directs the flow perpendicular to the river flow. This pipe is not equipped with a membrane or duckbill diffuser. In the past, this submerged discharge pipe was erroneously referred to as a diffuser. The current permit requires an underwater inspection and video of the "diffuser" every 3 years.

The extrusion contact cooling water sump collects contact cooling water from seven extruders. An additional "loose" tube extruder is currently under construction and should be operational by July 2019. The sump consists of a 15,200-gallon concrete, mostly below-grade pit. Flow from the tank through two 60 gpm submersible pumps with float switches control the flow from the tank.

The cable test tank sump collects the overflow and maintenance drainage of cable test tanks in the "pan building" and air conditioner condensate. The pan building houses cable test tanks and is located on the eastern side of the facility. The cable test tank sump holds approximately 2,750 gallons. Flow from the sump is controlled by two 80 gpm submersible pumps are float switches.

Various activities throughout the facility generate contact and non-contact cooling water (approximately 7,000 GPD) that is discharged directly to the Newington POTW or re-circulated to a cooling tower and chiller with overflow to the POTW, therefore these discharges are not subject to this permit proceeding. These include power conducting lines (spring loaded dies, patch welders, cross welders, line welders), air conditioners, chillers, humidifiers, heat

exchangers used to cool various types of manufacturing equipment, induction heaters, lab equipment, and molding equipment. Sanitary wastewater generated onsite (approximately 25,000 gpd) also discharges to the Newington POTW.

A quantitative description of the discharge in terms of effluent parameters, based on monitoring data submitted by the Permittee, including Discharge Monitoring Reports (DMRs), from February 2014 through February 2019, is provided in Appendix A of this Fact Sheet.

4.0 Description of Receiving Water and Dilution

4.1 Receiving Water

As mentioned previously, the Facility discharges through Outfall 007 at Latitude 43° 6' 11" Longitude 70° 47' 29". The outfall discharges into the Lower Piscataqua River - North (Assessment Unit ID: NHEST600031001-02-01), which encompasses 0.613 square miles in the vicinity of the town of Newington, New Hampshire.

The Piscataqua River begins at the confluence of the Salmon Falls and Cocheco Rivers between Dover, New Hampshire and Eliot, Maine. The combined drainage area contains approximately 1,495 square miles in Maine and New Hampshire, including Great Bay and six of its tributaries. The Piscataqua itself is a tidal river, approximately 13 miles long, which empties into Portsmouth Harbor and ultimately the Atlantic Ocean. The tide in this river is semi-diurnal with an average period of 12.4 hours. The lower portion of the Piscataqua River, where the discharge is located, has been characterized as a well-mixed estuary. Tidal flushing requires six to 12 tidal cycles (3 to 6 days) and tidal mixing forces cause the water column to be vertically well mixed. In the vicinity of the Facility's discharge, center river channel depths range from 42 ft to 75 ft below Mean Low Water (MLW) with a median depth (as defined by area) of 18 ft. Also, within the lower Piscataqua River, the river has maximum sweeping flow velocities of approximately 4.9 feet per second (fps) during ebb tide and 4.4 fps during flood tide. The peak tidal flows are approximately 117,000 cubic feet per second (cfs).

The Piscataqua River is classified as a Class B water body pursuant to the State of New Hampshire's Surface Water Quality Regulations (N.H. Code of Administrative Rules, Env-Wq 1703.01) and N.H. RSA 485-A:8. Pursuant to New Hampshire Law at Revised Statutes Annotated (RSA) 485-A:8, II;

> Class B waters shall be of the second highest quality and shall have no objectionable physical characteristics, shall contain a dissolved oxygen content of at least 75 percent of saturation.... The pH range for said waters shall be 6.5 to 8.0 except when due to natural causes. Any stream temperature increase associated with the discharge of treated sewage, waste or cooling water, water diversions, or releases shall not be such as to appreciably interfere with the uses assigned to this class. The waters of this classification shall be considered as being acceptable for fishing, swimming and other recreational purposes and, after adequate treatment, for use as water supplies….

Furthermore, the New Hampshire Code of Administrative Rules, Chapter Env-Wq 1700 - Surface Water Quality Regulations (hereinafter "NH Standards") provides expanded and refined

interpretations of the State Statute (RSA 485-A:8). Env-Wq 1703.03(c) states that:
[t]he following physical, chemical and biological criteria shall apply to all surface waters:

1. All surface waters shall be free from substances in kind or quantity which:
   a. settle to form harmful deposits;
   b. float as foam, debris, scum or other visible substances;
   c. produce odor, color, taste or turbidity which is not naturally occurring and would render it unsuitable for its designated uses;
   d. result in the dominance of nuisance species; or
   e. interfere with recreational activities.

Section 303(d) of the CWA requires states to identify those water-bodies that are not expected to meet surface water quality standards after the implementation of technology-based controls and, as such, require the development of total maximum daily loads (TMDL).

The Lower Piscataqua River – North is listed in the final *New Hampshire Year 2016 Integrated List of Waters* ("303(d) List") as a Category 5-P "Waters Requiring a TMDL[6] for polychlorinated biphenyls (PCB's) and mercury under the fish consumption designated use category, dioxin, mercury and PCB's under the shellfishing designated use category and estuarine bioassessments under the aquatic life designated use category.

To date, no TMDL has been developed for this segment for any of the listed impairments. The status of each designated use is presented in Table 1.

Table 3: Summary of Designated Uses and Listing Status

Designated Use	Status
Aquatic Life	Not Supporting / Severe
Drinking Water After Treatment	Fully Supporting / Good
Primary Contact Recreation	Potentially Fully Supporting / Insufficient Information
Secondary Contact Recreation	Insufficient Information / No Data
Fish Consumption	Not Supporting/ Marginal
Shellfishing	Not Supporting/ Marginal

According to the New Hampshire Watershed 305(b) Assessment Summary Report,[7] this water body segment is fully supporting designated uses for drinking water, after treatment, potentially fully supporting designated uses for primary contact recreation, and not supporting designated uses for aquatic life, fish consumption and shellfishing. There is insufficient information to assign a status to the secondary contact recreation designated use category.

[6] New Hampshire Year 2016 Section 303(d) Surface Water Quality List. NHDES, R-WD-17-09; November 2017.
[7] NHDES 2016 Surface Water Quality Assessment Viewer available at:
http://nhdes.maps.arcgis.com/apps/webappviewer/index.html?id=aca7a13dced5426aa542c62b1ea10d0c and
NHDES 2016 Watershed Report Card available at:
https://www2.des.state.nh.us/onestoppub/SWQA/010600031001_2016.pdf

4.2 Available Dilution

To ensure that discharges do not cause or contribute to violations of WQSs under all expected conditions, WQBELs are derived assuming critical conditions for the receiving water.[8]

SubCom discharges into the Piscataqua River, which is a tidal river. The existing 2010 Permit has limits based on a dilution ratio of 100:1:

> Available dilution in the Piscataqua River for the discharge from Outfall 007 is 100, based on dilution studies completed by the permittee in November 1997 and approved by NHDES-WD on January 9, 1998. This dilution factor is used for calculating the water quality-based criteria limits.

2009 Tyco Fact Sheet, page 5. More recently, NHDES-WD modeled the discharge using the Cornell Mixing Zone Expert System (CORMIX) and determined the dilution to be 158:1.[9] However, a dilution of 100:1 is used for the Draft Permit since this is the maximum dilution allowed by the NHDES for marine discharges. EPA used this dilution factor (DF) in its quantitative derivation of WQBELs for pollutants in the Draft Permit.

5.0 Proposed Effluent Limitations and Conditions

The proposed effluent limitations and conditions derived under the CWA and State WQSs are described below. These proposed effluent limitations and conditions, the basis of which is discussed throughout this Fact Sheet, may be found in Part I of the Draft Permit. In accordance with 40 CFR § 122.45(b)(2), EPA based the calculation of certain effluent limitations upon a reasonable measure of Facility flow. *See* Section 3.1.2 of this Fact Sheet.

The State and Federal regulations, data regarding discharge characteristics, and data regarding ambient characteristics described above, were used during the effluent limitations' development process. Discharge data are included in Appendix A. EPA's Reasonable Potential Analysis is included in Appendix B and results are discussed in the sections below.

5.1 Effluent Limitations and Monitoring Requirements (Final Outfall 007)

5.1.1 Effluent Flow

From February 01, 2014 through February 28, 2019, the total daily effluent flow from Outfall 007 ranged from 0.002 MGD to 0.11 MGD and the monthly average flow ranged from 0.001MGD to 0.052 MGD. See Appendix A. The Facility's 2010 Permit limits the discharge to a maximum daily flow limit of 0.16 MGD and an average monthly flow rate of 0.06 MGD. Under normal operating conditions, and as indicated by monitoring data and information provided by the Permittee, the maximum flow is typically no greater than approximately 0.0217 MGD. Therefore, the Draft Permit maintains a maximum daily flow limit of 0.16 MGD and an average

[8] EPA Permit Writer's Manual, Section 6.2.4
[9] *See* April 2, 2019 email from Hayley Franz, NHDES to Sharon DeMeo, EPA.

monthly flow limit of 0.06 MGD using a continuous flow recorder or similar device, when the Facility is discharging.

In accordance with the ELGs for Plastics Molding and Forming Point Source Category, the total volume of flow for the extrusion contact cooling water process is needed to determine mass-based effluent limits at a newly created internal outfall. As previously explained, only the extrusion cooling water is subject to the ELGs. See Section 5.2 for the Draft Permit requirements for Outfall 008.

5.1.2 pH

The hydrogen-ion (H-) concentration in an aqueous solution is represented by the pH using a logarithmic scale of 0 to 14 standard units (S.U.). Solutions with pH 7.0 S.U. are neutral, while those with pH less than 7.0 S.U. are acidic and those with pH greater than 7.0 S.U. are basic. Discharges with pH values markedly different from the receiving water pH can have a detrimental effect on the environment. Sudden pH changes can kill aquatic life.

The National ELGs for Plastics Molding and Forming Point Source Category require pH limits of 6.0-9.0 S.U. *See* 40 C.F.R. § 463.13(b). However, the New Hampshire Law requires more stringent effluent pH limits of 6.5 to 8.0 S.U. *See* N.H. RSA 485-A:8,II. Consequently, the Draft Permit requires pH limits of 6.5 to 8.0 S.U. when the Facility is discharging, monitored monthly by grab samples. These limitations also comply with anti-backsliding requirements found in 40 C.F.R. § 122.44(1).

From February 2014 through February 2019 (Appendix A), pH has ranged from 6.5 to 8.0 S.U.

5.1.3 Temperature

Ambient water temperature is an important factor for aquatic life and can influence other water quality aspects such as dissolved oxygen (because the solubility of oxygen decreases as water temperature increases). Water temperature affects the metabolic and reproductive activities of aquatic organisms and can determine which fish and macroinvertebrate species can survive in a given water body. Cold blooded estuarine species cannot regulate their body temperature through physiological means, so their body temperatures are very close to the temperatures of the water they inhabit.

The Piscataqua River provides habitat for freshwater, marine and anadromous fish species. The river is a tidal, transition zone, and along with Great Bay as a whole, serves as a nursery for early life stages of marine and aquatic organisms. The State's statutory and regulatory provisions do not specify numeric temperature criteria but do specify narrative criteria specific to thermal discharges in order to protect the existing and designated uses of the water body and restore and maintain the chemical, biological, and physical integrity of the State's waters and to provide for the protection and propagation of fish, shellfish, and wildlife. *See* Env-Wq 1701.01 and 1703.01(b). New Hampshire's environmental statutes and water quality standards dictate that in Class B waters, "any stream temperature increase associated with the discharge of treated sewage, waste or cooling water, water diversions, or releases shall not be such as to appreciably interfere with the uses assigned to this class." Further, the minimum treatment requirements for

thermal wastes discharged to interstate waters are to follow the water quality requirements and recommendations of the NHFGD, New England Interstate Water Pollution Control Commission, or the EPA, whichever provide the most effective level of control. *See* RSA 485-A:8, II; VIII and Env-Wq 1703.13(b).

The 2010 Permit requires a maximum daily temperature limit of 27ºC (80.6ºF), monitored once per month. Review of DMR data from February 2014 through February 2019 reveals that the maximum daily discharge temperature ranged from 14.2ºC – 26.6ºC (57.6ºF – 79.9ºF), and therefore has not exceeded the limit. The average monthly discharge temperature ranged from 13.6ºC – 24.9ºC (56.5ºF – 76.8ºF). Given the rapid mixing afforded by the high energy, tidal Piscataqua River, the maximum daily temperature limit of 27ºC (80.6ºF) remains appropriate to protect the designated uses of the river. The retention of this limit is also in accordance with anti-backsliding requirements found in 40 C.F.R. § 122.44(l). The monitoring frequency has not been changed.

5.1.4 Metals

Metals are naturally occurring constituents in the environment and generally vary in concentration according to local geology. Metals are neither created nor destroyed by biological or chemical processes. However, metals can be transformed through processes including adsorption, precipitation, co-precipitation, and complexation. Some metals are essential nutrients at low levels for humans, animals, plants and microorganisms, but toxic at higher levels (e.g., copper and zinc). Other metals have no known biological function (e.g., lead). The environmental chemistry of metals strongly influences their fate and transport in the environment and their effects on human and ecological receptors. Toxicity results when metals are biologically available at toxic concentrations affecting the survival, reproduction and behavior of an organism.

The 2010 Permit includes a monthly average effluent limitation of 0.37 mg/L for total recoverable copper and 8.6 mg/L for total recoverable zinc, monitored twice per month at Outfall 007. These limitations were included in the 2010 Permit based on previous monitoring data that indicated the Facility has reasonable potential to cause or contribute to an excursion above the chronic water quality criteria applicable to the Piscataqua River. The 2010 Permit also includes a daily maximum monitoring requirement for total recoverable copper and zinc twice per month and daily maximum total recoverable aluminum, cadmium, copper, lead, nickel and zinc in the discharge and the receiving water in conjunction with Whole Effluent Toxicity testing for Outfall 007.

For Outfall 007, from February 2014 through February 2019 (Appendix A), total recoverable chromium and cadmium were not detected above laboratory detection limits. However, total recoverable aluminum, copper, lead, nickel, and zinc were detected in the discharge. EPA completed an analysis to determine if these discharges cause, or have a reasonable potential to cause, or contribute to an excursion above WQSs (Appendix B). The results of EPA's analysis indicate discharges of lead and nickel do not cause, or have a reasonable potential to cause, or contribute to an excursion above WQSs. As a result, the Draft Permit does not include effluent limitations for these metals. Regardless, annual monitoring for total recoverable cadmium, lead, and nickel in the discharge and the receiving water continue to be required in conjunction with

Whole Effluent Toxicity Testing, discussed further below. It is noted that while aluminum was detected in the Facility's discharge, aluminum criteria are not applicable to saltwater receiving waters, and therefore, aluminum was excluded from this analysis.

The results of EPA's analysis indicate discharges of copper cause, or have a reasonable potential to cause, or contribute to an excursion above the chronic aquatic life water quality criterion. As a result, the Draft Permit retains the effluent limitation of 0.37 mg/L for average monthly total recoverable copper at a frequency of 2/month. The Draft Permit also retains the effluent limitation for monthly average total recoverable zinc. While the results of EPA's analysis indicate discharges of zinc do not cause, or have a reasonable potential to cause, or contribute to an excursion above the chronic aquatic life water quality criterion, anti-backsliding provisions at 40 C.F.R. § 122.44(l)(1) and (2) apply to the existing effluent limitation of 8.6 mg/L for monthly average total recoverable zinc. As a result, the Draft Permit retains the effluent limitation of 8.6 mg/L for average monthly total recoverable zinc at a frequency of 2/month. Since the results of EPA's analysis indicate discharges of copper and zinc do not cause, or have a reasonable potential to cause, or contribute to an excursion above the acute aquatic life water quality criteria, the Draft Permit does not contain an effluent limitation for daily maximum total recoverable copper or zinc but retains the daily maximum monitoring requirements. In addition, annual monitoring for total recoverable copper and zinc in the discharge and the receiving water continue to be required in conjunction with Whole Effluent Toxicity Testing, discussed further below.

5.1.5 Total Residual Chlorine (TRC)

Chlorine and chlorine compounds are toxic to aquatic life. Free chlorine is directly toxic to aquatic organisms and can react with naturally occurring organic compounds in receiving waters to form toxic compounds such as trihalomethane. Potable water sources are typically chlorinated to minimize or eliminate pathogens. 40 C.F.R. § 141.72 stipulates that a public water system's residual disinfectant concentration in the water entering the distribution system cannot be less than 0.2 mg/L for more than four hours. Discharges from the Facility have the potential to contain total residual chlorine (TRC) because the Facility uses potable water for its process waters. As a result, the 2010 Permit includes monitoring requirements for TRC once per month at Outfall 007 and reporting daily maximum and monthly average. From February 2014 through February 2019 (Appendix A), daily maximum and monthly average TRC concentrations have ranged from below the minimum level of detection to 0.48 mg/L at Outfall 007.

The acute and chronic aquatic life criteria specified in the State WQSs at Env-Wq 1703.21, Table 1703.1 are 13 µg/L (0.013 mg/L) and 7.5 µg/L (0.0075 mg/L). EPA completed an analysis to determine if these discharges cause, or have a reasonable potential to cause, or contribute to an excursion above State WQSs (Appendix B). The results of this analysis indicate discharges of TRC do not cause, or have a reasonable potential to cause, or contribute to an excursion above State WQSs. As a result, the Draft Permit does not include effluent limitations for TRC. However, to ensure EPA's determination is accurate over the course of the permit term, daily maximum monitoring for TRC is continued in the Draft Permit at a frequency of once per month.

5.1.6 Whole Effluent Toxicity

Sections 402(a)(2) and 308(a) of the CWA provide EPA and States with the authority to require toxicity testing. Section 308 specifically describes biological monitoring methods as techniques that may be used to carry out objectives of the CWA. Whole effluent toxicity (WET) testing is conducted to ensure that the additivity, antagonism, synergism, and persistence of the pollutants in the discharge do not cause toxicity, even when the individual pollutants are present at low concentrations in the effluent. The inclusion of WET requirements in the Draft Permit will assure that the Facility does not discharge combinations of pollutants into the receiving water in amounts that would be excessively toxic to aquatic life or human health.

In addition, under § 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on WQSs. Under CWA§§ 301, 303 and 402 of the CWA, EPA and the States may establish toxicity-based limitations to implement narrative water quality criteria calling for "no toxics in toxic amounts". *See also* 40 C.F.R. § 122.44(d)(1). New Hampshire statute and regulations state that, "*all surface waters shall be free from toxic substances or chemical constituents in concentrations or combination that injure or are inimical to plants, animals, humans, or aquatic life....*" (N.H. RSA 485-A:8, VI and the N.H. Code of Administrative Rules, PART Env-Wq 1730.21(a)(1)).

To ensure that the Facility's wastewater was not potentially harmful to the environment, the 2010 Permit required the Permittee conduct acute WET testing twice during the permit term; during July of the first year of the permit and during July the third year of the permit. EPA had determined that chronic testing was not appropriate given that the dilution factor is above 100 and the discharge flow from Outfall 007 is intermittent.

Whole effluent acute effects are regulated by limiting the concentration that is lethal to 50% of the test organisms, known as the LC50. Therefore, a >100% limit result means that a sample of 100% effluent (no dilution) has not caused a mortality rate >50% for that effluent sample. The LC50 test results (Appendix A) show that there is no indication of acute toxicity.

The Draft Permit requires the Permittee to conduct acute WET testing during the month of July every three years using two species, Mysid Shrimp (*Mysidopsis bahia*) and Inland Silverside (*Menidia beryllina*), in accordance with the test procedure and protocol (Marine Acute Toxicity Test Procedure and Protocol) which is provided as Attachment A to the Draft Permit.

5.2 Effluent Limitations and Monitoring Requirements (Internal Outfall 008)

5.2.1 Flow

As described in Section 3.1.2 of this Fact Sheet, mass-based limits are determined by multiplying the average process water usage flow rate for the contact cooling process times the concentration listed in Subpart A of the Plastics Molding and Forming Point Source Category (40 C.F.R. Part 463). The "average process water usage flow rate" is defined in 40 C.F.R. §463.11(a), as the volume of process water used per year divided by the number of days per year the process operates. Therefore, the Draft Permit requires the Permittee to report the total volume of

extrusion contact cooling water used each month and the number of days the extrusion process operated.

5.2.2 Total Suspended Solids

Solids could include inorganic (e.g., silt, sand, clay, and insoluble hydrated metal oxides) and organic matter (e.g., flocculated colloids and compounds that contribute to color). Suspended solids may settle to form bottom deposits in the receiving water, potentially causing benthic smothering. Suspended solids also increase turbidity in receiving waters and reduce light penetration through the water column, thereby limiting the growth of rooted aquatic vegetation that serves as a critical habitat for fish and other aquatic organisms, and can clog fish gills, resulting in an increase in susceptibility to infection or asphyxiation. Suspended solids also provide a medium for the transport of other adsorbed pollutants, such as metals, which may accumulate in settled deposits that can have a long-term impact on the water column through cycles of re-suspension.

From February 1, 2014 through February 28, 2019 (Appendix A), daily maximum mass of total suspended solids (TSS) ranged from below detection limits to 0.55 lbs/day. The 2010 Permit limits the mass of TSS at 3.5 lbs/day based on the Plastics Molding and Forming Point Source Category, Subpart A at 40 C.F.R. Part 463. Outfall 007, however, includes the flow from both the extrusion cooling water that is subject to the ELGs and the test tank water that is not subject to the ELGs. Therefore, EPA has added internal Outfall 008 in the Draft Permit with a mass-based maximum daily TSS limitation of 1.5 lbs/day in accordance with the ELGs. See Section 3.1.2 of this Fact Sheet for the calculations.

5.2.3 Oil and Grease

Oil and Grease (O&G) is not a single chemical constituent, but includes a large range of organic compounds, which can be both petroleum-related (e.g., hydrocarbons) and non-petroleum (e.g., vegetable and animal oils and greases, fats, and waxes). These compounds have varying physical, chemical, and toxicological properties. Generally, oils and greases in surface waters either float on the surface, are solubilized or emulsified in the water column, adsorb onto floating or suspended solids and debris, or settle on the bottom or banks. Oil and grease, or certain compounds within an oil and grease mixture can be lethal to fish, benthic organisms and water-dwelling wildlife.

From February 1, 2014 through February 28, 2019 (Appendix A), daily maximum mass of O&G ranged from below detection limits to 2.1 lbs/day. The 2010 Permit limits the mass of O&G at 5.3 lbs/day based on the Plastics Molding and Forming Point Source Category, Subpart A at 40 C.F.R. Part 463. Outfall 007, however, includes the flow from both the extrusion cooling water that is subject to the ELGs and the test tank water that is not subject to the ELGs. Therefore, EPA has added internal Outfall 008 in the Draft Permit with a mass-based maximum daily O&G limitation of 2.2 lbs/day in accordance with the ELGs. See Section 3.1.2 of this Fact Sheet for the calculations.

5.2.4 BOD

Biochemical oxygen demand, or BOD, measures the amount of oxygen consumed by microorganisms in decomposing organic matter in stream water. BOD also measures the chemical oxidation of inorganic matter (i.e., the extraction of oxygen from water via chemical reaction). A test is used to measure the amount of oxygen consumed by these organisms during a specified period of time (usually 5 days at 20 C). The rate of oxygen consumption in a stream is affected by a number of variables: temperature, pH, the presence of certain kinds of microorganisms, and the type of organic and inorganic material in the water.

BOD directly affects the amount of dissolved oxygen in rivers and streams. The greater the BOD, the more rapidly oxygen is depleted in the stream. This means less oxygen is available to higher forms of aquatic life. The consequences of high BOD are the same as those for low dissolved oxygen: aquatic organisms become stressed, suffocate, and die.

From February 1, 2014 through February 28, 2019 (Appendix A), daily maximum mass of BOD ranged from below detection limits to 4.04 lbs/day. The 2010 Permit limits the mass of BOD at 4.8 lbs/day based on the Plastics Molding and Forming Point Source Category, Subpart A at 40 C.F.R. Part 463. Outfall 007, however, includes the flow from both the extrusion cooling water that is subject to the ELGs and the test tank water that is not subject to the ELGs. Therefore, EPA has added internal Outfall 008 in the Draft Permit with a mass-based maximum daily BOD limitation of 2.0 lbs/day in accordance with the ELGs. See Section 3.1.2 of this Fact Sheet for the calculations.

5.2.5 Diethylhexyl Phthalate (DEHP)

DEHP, also known as bis (2-ethyl hexyl) phthalate, is a toxic plasticizer widely used in the manufacturing of PVC. Except for DEHP, BAT effluent limitations guidelines promulgated in 40 CFR § 463.13 are the same as the BPT ELGs in 40 CFR § 463.12. Since the technologies considered during the development of the proposed rule for the Plastics Molding and Forming Point Source Category cannot be used to control DEHP, EPA reserved the BAT ELGs for this pollutant pending further study.[10]

While the Facility purchases PVC that could contain DEHP for use in plastic coating, the Facility does not manufacture this or any plasticizer. In addition, concentrations of DEHP was not detected above the detection limit of 0.006 mg/L for the extrusion water and 0.005 mg/L for the test tank water, sampled on March 7, 2019. As a result, EPA's BPJ BAT determination for this pollutant, for this facility, is a monitoring-only requirement for DEHP, once per year.

5.3 Special Conditions

[10] See *Development Document for Effluent Limitations Guidelines and Standards for The Plastics Molding and Forming Point Source Category*. Report EPA 440/1-84/069, December 1984.

5.3.1 Best Management Practices

Pursuant to § 304(a) of the Act and 40 C.F.R. § 122.44(k), best management practices (BMPs) may be expressly incorporated into a permit on a case-by-case basis where it is determined they are necessary to carry out the provision of the CWA under § 402(a)(1). The 2010 Permit requires the Permittee to maintain the effluent diffuser to ensure proper operation and to have licensed divers or licensed marine contractors inspect and videotape the operation of the diffuser annually. NHDES has requested that this inspection requirement be a standard requirement for facilities with a dilution factor that is calculated using a CORMIX, or similar, mixing zone model. Based on the inspection report dated July 10, 2010, which documented the outfall was operating as designed, EPA and NHDES reduced the annual inspection requirement to once every three years as allowed under Part I.B.2.c of the 2010 Permit. *See* February 9, 2011 letter from David Webster to Kenneth Newbury.

SubCom discharges through a single 4-inch PVC pipe that gravity feeds approximately 450 feet to the end of the Facility's pier on the Piscataqua River. The PVC pipe converts to a high-density polyethylene (HDPE) pipe that submerges vertically into the river approximately 29 feet at high mean water level. At the point of discharge, the pipe is located approximately 2 feet from the river bottom, angled at 30-degrees upward from horizontal, and directed cross-flow from the ambient river flow direction.

Certain dilution factors, such as that for SubCom, are determined using a CORMIX mixing zone model. Inputs to the model include port cross sectional area, port height, vertical discharge angle, and horizontal discharge angle. Modifications of these input parameters can result in a change to an outfall's mixing zone and dilution factor, which could result in a discharge not meeting water quality standards.

Over time, the condition of SubCom's outfall configuration may change due to sediment and debris buildup or damage to the discharge pipe. To confirm that the outfall functions as it was designed and to maintain the input parameters for determining the dilution factor, which the permit's limits are based, the Draft Permit includes BMP requirements, as a State Condition.

The Draft Permit requires that the current outfall configuration be maintained. Maintenance of the outfall may include dredging[11] in the vicinity of the outfall, removal of solids/debris in the discharge pipe, and repair/replacement. To determine if maintenance of the outfall will be required, the Permittee shall continue to inspect and videotape the outfall every three years. The Permittee may choose to use either a qualified diver or marine contractor to inspect and videotape the operation of the outfall pipe or if preferred, remote video optics (e.g., submersible camera) can be used instead of divers.

5.3.2 pH Limit Adjustment

The Draft Permit (Part I.C.1) contains language similar to the existing permit which allows EPA to consider a change to the pH limits if the Permittee can demonstrate to the satisfaction of NHDES that the in-stream pH standard will be protected when the Permittee's discharge is

[11] Any necessary maintenance dredging must be performed in accordance with State and Federal requirements.

outside the permitted range of 6.5 to 8.0 SU. Under such conditions, the Permittee or NHDES may request in writing that the pH permit limit(s) be modified by EPA to incorporate the results of the demonstration. The upstream or background sampling location identified by the facility shall be approved by NHDES prior to the initiation of sampling. For the purposes of the compliance demonstration, the upstream and downstream sampling is to occur as close in time as possible, but not greater than 1 hour apart.

Anticipating the situation where the Permittee has completed such a demonstration, and subsequently the NHDES has granted formal approval to changing the pH limit(s), EPA has added a provision to the Draft Permit which allows EPA to modify the pH limit(s) via a certified letter sent to the Permittee. The change would be contingent upon the Permittee demonstrating that the revised pH limit range does not alter the naturally occurring receiving water pH and does not exceed the allowable pH range identified in the ELGs (6.0 to 9.0 SU) for the Plastics Molding and Forming Point Source Category, Contact Cooling and Heating Water Subcategory, 40 CFR Part §463, Subpart A.

Such a change in the permit pH limit(s) would not be in violation of anti-backsliding requirements because the modification would be based on new information not available at the time of the issuance of the existing permit. *See* 40 C.F.R. § 122.44(l)(2)(i)(B). EPA anticipates that the limit(s) determined from the demonstration study as approved by the NHDES will satisfy all effluent requirements for this source category and will comply with the New Hampshire Surface Water Quality Regulations.

6.0 Federal Permitting Requirements

6.1 Endangered Species Act

Section 7(a) of the Endangered Species Act of 1973, as amended (ESA), grants authority to and imposes requirements on Federal agencies regarding endangered or threatened species of fish, wildlife, or plants (listed species) and any habitat of such species that has been designated as critical under the ESA (*i.e.*, "critical habitat").

Section 7(a)(2) of the ESA requires every Federal agency, in consultation with and with the assistance of the Secretary of Interior, to ensure that any action it authorizes, funds or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. The United States Fish and Wildlife Service (USFWS) administers Section 7 consultations for freshwater species. The National Marine Fisheries Service (NMFS) administers Section 7 consultations for marine and anadromous species.

The Federal action being considered in this case is EPA's proposed NPDES permit for the Facility. The Draft Permit is intended to replace the 2010 Permit in governing the Facility's discharge of pollutants. As the federal agency charged with authorizing the discharge from this Facility, EPA determines potential impacts to federally listed species and initiates consultation, with the Services when required under § 7(a)(2) of the ESA.

EPA has reviewed the federal endangered or threatened species of fish, wildlife, and plants in the expected action area of the outfall to determine if EPA's proposed NPDES permit could potentially impact any such listed species. For protected species under the jurisdiction of the USFWS, one listed endangered species, the northern long-eared bat (*Myotis septentrionalis*), was identified as potentially occurring in the Lower Piscataqua River action area.[12] According to the USFWS, the northern long-eared bat is found in "winter – mines and caves, summer – wide variety of forested habitats. This species is not aquatic, so the discharge will have no direct effect on this mammal. Further, the permit action is also expected to have no indirect effect on the species because it is not expected to impact insects, the primary prey of the northern long-eared bat. Therefore, the proposed permit action is deemed to have no impact on this listed species.

For protected species under the jurisdiction of NMFS, subadult and adult life stages of Atlantic sturgeon (*Acipenser oxyrinchus*), as well as adult shortnose sturgeon (*Acipenser brevirostrom*), are likely present in the action area of the Facility's outfall. In addition, this reach of the Piscataqua River has been designated as critical habitat for Atlantic sturgeon.[13]

EPA has made the preliminary determination that the proposed action may affect, but is not likely to adversely affect, the Atlantic sturgeon and shortnose sturgeon life stages found in the action area. In addition, EPA has judged that all effects to the applicable aspects of the four physical or biological features for reproduction and recruitment requiring special management considerations or protection for Atlantic sturgeon critical habitat will be insignificant and the reissuance of this permit is not likely to adversely affect the critical habitat.

Therefore, EPA has judged that a formal consultation pursuant to Section 7 of the ESA is not required. EPA is seeking concurrence from NMFS regarding this informal consultation determination through the information in this Fact Sheet and the Draft Permit, as well as supporting information and a request for concurrence contained in a consultation letter to be sent under separate cover to NMFS Protected Resources during the public comment period.

Reinitiation of consultation will take place: (a) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the consultation; (b) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the consultation; or (c) if a new species is listed or critical habitat is designated that may be affected by the identified action.

6.2 Essential Fish Habitat

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (*see* 16 U.S.C. § 1801 et seq., 1998), EPA is required to consult with the National Marine Fisheries Service (NMFS) if EPA's action or proposed actions that it funds,

[12]See §7 resources for USFWS at https://ecos.fws.gov/ipac/.
[13] See §7 resources for NMFS at https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=1bc332edc5204e03b250ac11f9914a27

permits, or undertakes, "may adversely impact any essential fish habitat". *See* 16 U.S.C. § 1855(b).

The Amendments broadly define "essential fish habitat" (EFH) as: "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." *See* 16 U.S.C. § 1802(10). "Adverse impact" means any impact that reduces the quality and/or quantity of EFH, 50 C.F.R. § 600.910(a). Adverse effects may include direct (*e.g.*, contamination or physical disruption), indirect (*e.g.*, loss of prey, reduction in species' fecundity), site specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

EFH is only designated for fish species for which federal Fisheries Management Plans exist.[16] *See* U.S.C. § 1855(b)(1)(A). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999.

The Piscataqua River is covered by the EFH designation for riverine systems at Latitude 43º6'29" N, Longitude 71º12'15" for the 16 species and life stages included in Table 4.[14]

Table 4: Piscataqua River EFH Species and Life Stages

Species/Management Unit	Lifestage(s) Found at Location
Atlantic Mackerel	Eggs, Larvae Juvenile
Bluefish	Adult, Juvenile
Bluefin Tuna	Adult
Atlantic Sea Scallop	ALL
Atlantic Wolffish	ALL
Winter Flounder	Eggs, Juvenile, Larvae/Adult
Little Skate	Juvenile, Adult
Atlantic Herring	Juvenile, Adult, Larvae
Atlantic Cod	Larvae, Adult, Eggs
Pollock	Juvenile, Eggs, Larvae
Red Hake	Adult, Eggs/Larvae/Juvenile
Windowpane Flounder	Adult, Larvae, Eggs, Juvenile
Winter Skate	Juvenile
Smooth Skate	Juvenile
White Hake	Adult, Eggs, Juvenile
Thorny Skate	Juvenile

EPA's Finding of all Potential Impacts to EFH Species

- This Draft Permit action does not constitute a new source of pollutants. It is the reissuance of an existing NPDES permit;
- The Piscataqua River is approximately 1,700 feet wide in the vicinity of the facility. The discharge plume is generally expected to hug the west bank of the river and not approach

[14] NOAA EFH Mapper available at http://www.habitat.noaa.gov/protection/efh/efhmapper/

the midpoint of the river. This ensures a large zone of passage that is unaffected by the discharge to allow upstream and downstream movement of migrating and foraging EFH species;
- The facility withdraws no water from the Piscataqua River, so no life stages of EFH species are vulnerable to impingement or entrainment from this facility;
- Acute toxicity tests will be conducted once per year to ensure that the discharge does not present toxicity problems;
- Effluent is discharged into the Piscataqua River, with rapid mixing characteristics from the high energy tidal exchange;
- Total suspended solids, biochemical oxygen demand, oil and grease, total copper, total zinc, temperature, and pH are regulated by the Draft Permit to meet water quality standards;
- The Draft Permit prohibits the discharge of pollutants or combination of pollutants in toxic amounts;
- The effluent limitations and conditions in the Draft Permit were developed to be protective of all aquatic life; and
- The Draft Permit prohibits violations of the state water quality standards.

EPA believes that the conditions and limitations contained within the SubCom Cable Systems Draft Permit adequately protects all aquatic life, including those with designated EFH in the receiving water, and that further mitigation is not warranted. Should adverse impacts to EFH be detected as a result of this permit action, or if new information is received that changes the basis for EPA's conclusions, NOAA Fisheries will be contacted and an EFH consultation will be re-initiated.

As part of the renewal of the NPDES permit for this facility, in addition to the Draft Permit and the information contained in this Fact Sheet, a letter under separate cover will be sent to NOAA Fisheries Habitat Protection.

7.0 Public Comments, Hearing Requests, and Permit Appeals

All persons, including applicants, who believe any condition of the Draft Permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to Sharon DeMeo, U.S. EPA, Water Division**,** Industrial Permits Section, 5 Post Office Square, Suite 100, Boston, Massachusetts 02109-3912 or via email to demeo.sharon@epa.gov.

Prior to the close of the public comment period, any person may submit a written request to EPA and the State Agency for a public hearing to consider the Draft Permit. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held if the criteria stated in 40 C.F.R. § 124.12 are satisfied. In reaching a final decision on the Draft Permit, the EPA will respond to all significant comments in a Response to Comments document attached to the Final Permit and make these responses available to the public at EPA's Boston office and on EPA's website.

Following the close of the comment period, and after any public hearings, if such hearings are held, the EPA will issue a Final Permit decision, forward a copy of the final decision to the applicant, and provide a copy or notice of availability of the final decision to each person who submitted written comments or requested notice. Within 30 days after EPA serves notice of the issuance of the Final Permit decision, an appeal of the federal NPDES permit may be commenced by filing a petition for review of the permit with the Clerk of EPA's Environmental Appeals Board in accordance with the procedures at 40 C.F.R. § 124.19.

8.0 EPA Contacts

Access to administrative record on which this Draft Permit is based may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays, from the EPA and MassDEP contacts below:

Sharon DeMeo
EPA Region 1
5 Post Office Square, Suite 100 (06-4)
Boston, MA 02109-3912
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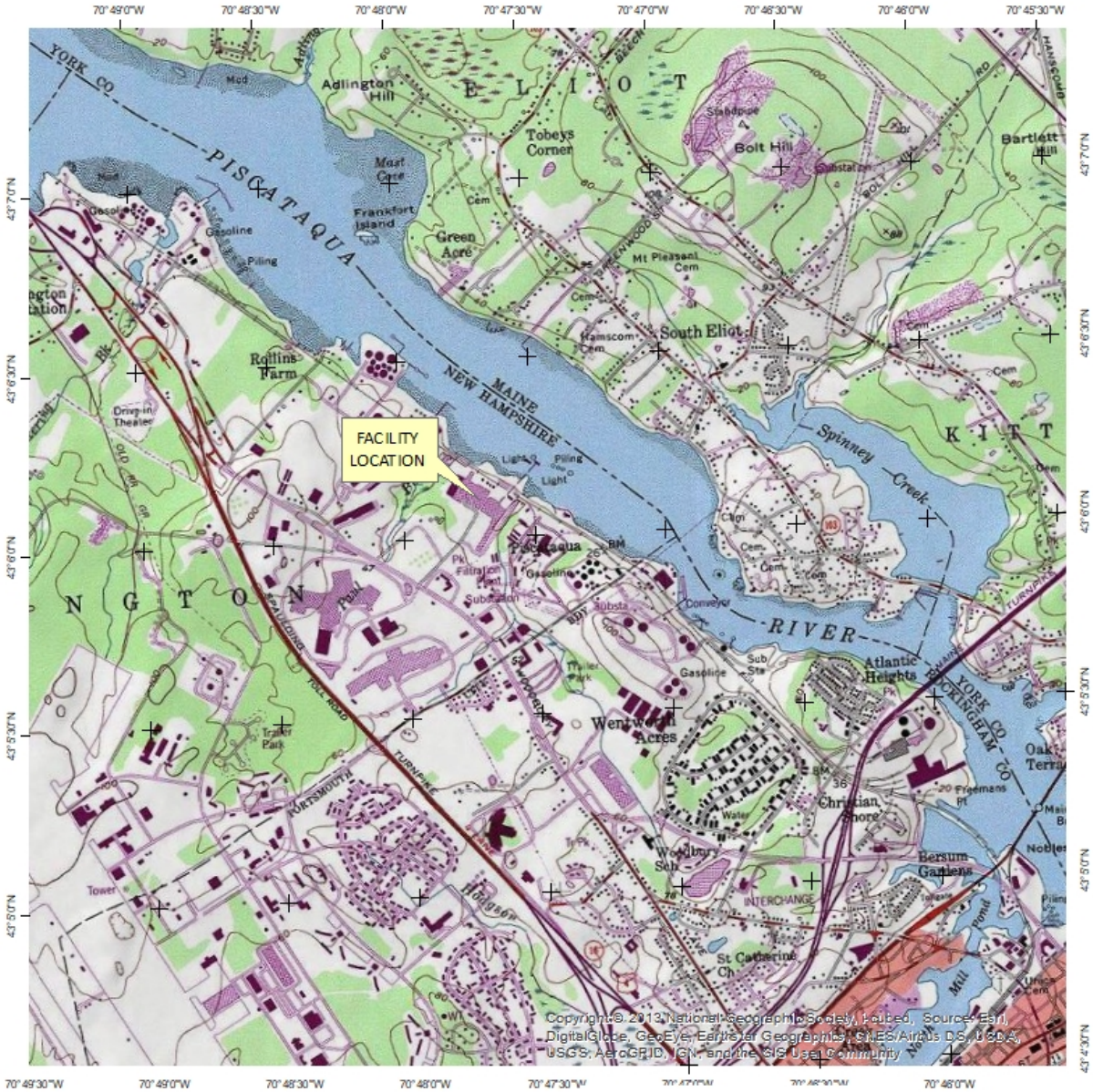
Email: demeo.sharon@epa.gov

June 2019

Ken Moraff, Director
Water Division
U.S. Environmental Protection Agency

Figure 1: Location Map



Scale 1 : 27,323

0 500 1,000 Meters

0 1,000 2,000 3,000 Feet

Regulated Facilities: EPA

FIGURE 1
SUBCOM Cable Systems
Location Map

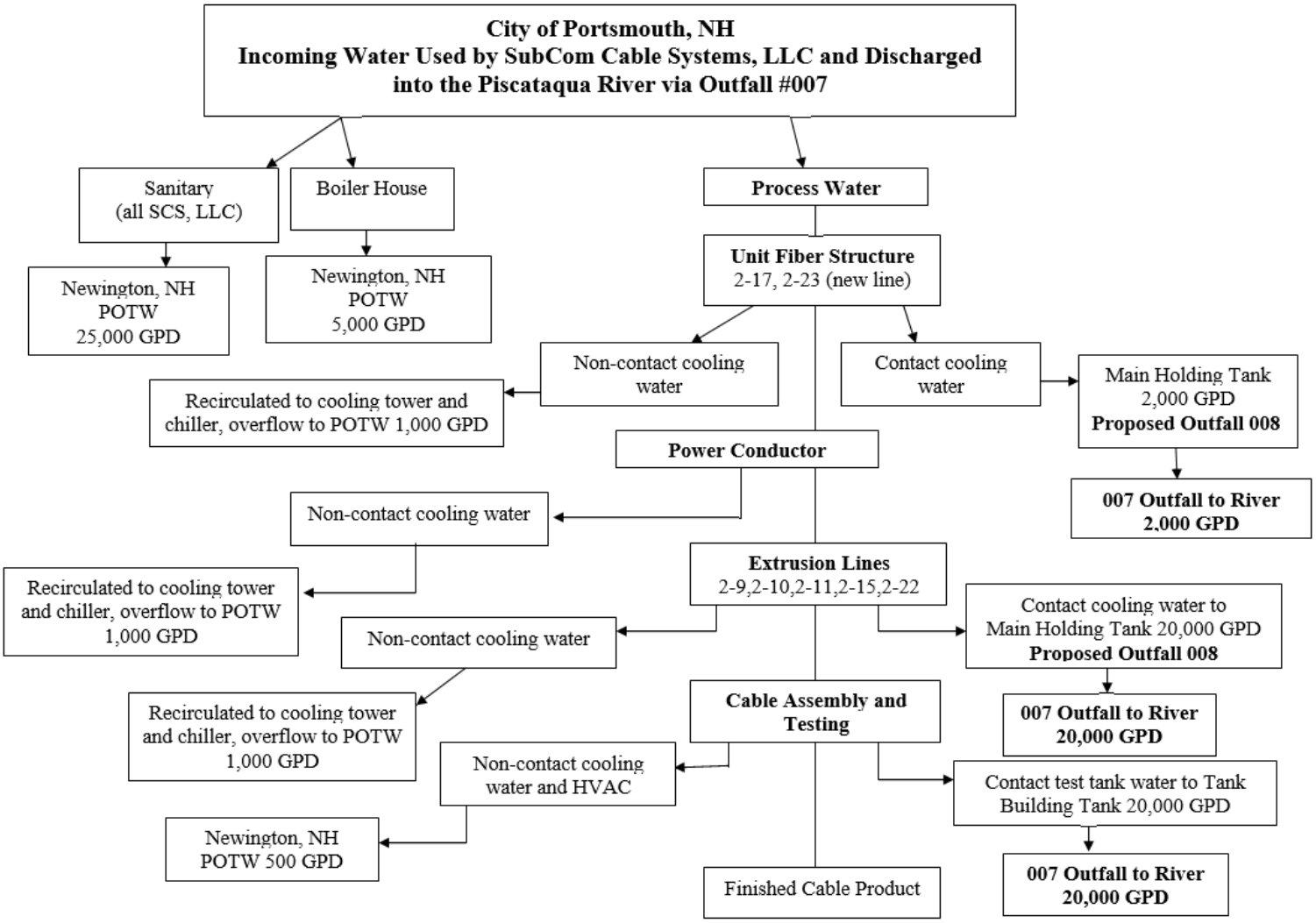
Newington, NH

EPA

6/6/2019

Figure 2: Site Plan

Figure 3: Schematic of Water Flow



Appendix A: Discharge Monitoring Data

Outfall 007 - Effluent

Parameter	Flow	Flow	BOD_5	TSS	pH	pH	TRC	TRC	Oil & Grease	Copper	Copper	Zinc	Zinc
	Mo Avg	Daily Max	Daily Max	Daily Max	Min	Max	Mo Avg	Daily Max	Daily Max	Mo Avg	Daily Max	Mo Avg	Daily Max
Units	**MGD**	**MGD**	**lb/d**	**lb/d**	**SU**	**SU**	**mg/L**	**mg/L**	**lb/d**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Effluent Limit	**0.06**	**0.16**	**4.8**	**3.5**	**6.5**	**8**	**Report**	**Report**	**5.3**	**0.37**	**Report**	**8.6**	**Report**
Minimum	**0.001**	**0.002**	**0**	**0**	**6.5**	**6.7**	**0**	**0**	**0**	**0**	**0**	**0.23**	**0.24**
Maximum	**0.052**	**0.11**	**4.04**	**0.55**	**8**	**8**	**0.48**	**0.48**	**2.1**	**0.73**	**10**	**4.7**	**8.1**
Average	**0.00963**	**0.0217**	**0.385**	**0.0683**	**7.46**	**7.66**	**0.0482**	**0.0487**	**0.0927**	**0.0689**	**0.259**	**0.999**	**1.3**
No. of Violations	**0**	**0**	**0**	**0**	**0**	**0**	**N/A**	**N/A**	**0**	**2**	**N/A**	**0**	**N/A**
2/28/2014	0.003	0.009	0.23	0.06	7.1	7.2	0.05	0.05	0.96	0	0	0.61	0.8
3/31/2014	0.004	0.012	0.0008	0.0003	6.8	7.1	0.06	0.06	0	0.05	0.05	1.8	2.1
4/30/2014	0.004	0.012	0	0	6.6	6.7	0.48	0.48	0	0	0	0.48	0.63
5/31/2014	0.001	0.003	0.42	0.2	6.7	6.9	0.05	0.05	0	0.06	0.07	1.1	1.8
6/30/2014	0.002	0.01	1.1	0.3	6.7	7	0.06	0.06	0	0.03	0.07	3.1	6.1
7/31/2014	0.007	0.013	0.11	0	6.7	6.8	0.31	0.31	0	0.05	0.1	1.6	2.8
8/31/2014	0.012	0.038	0	0.55	6.8	6.9	0.06	0.06	0	0	0	0.57	0.58
9/30/2014	0.003	0.009	0.237	0.151	6.8	6.9	0.03	0.06	0	0	0	1.55	2
10/31/2014	0.009	0.024	1.4	0	7.6	8	0.11	0.11	0	0	0	1.7	2.3
11/30/2014	0.007	0.012	0.72	0.24	6.8	6.9	0.06	0.06	0.64	0	0	1.03	1.5
12/31/2014	0.004	0.008	0.54	0	7.6	7.7	0.04	0.04	0	0	0	2	2.4
1/31/2015	0.005	0.011	0	0	7.6	7.7	0.06	0.06	0	0	0	0.86	0.93

2/28/2015	0.005	0.016	0	0.2	7.6	7.8	0.06	0.06	0	0	0	0.87	0.99
3/31/2015	0.008	0.016	0.44	0.3	7.1	7.2	0.06	0.06	0	0.16	0.21	1.3	1.9
4/30/2015	0.007	0.009	0.56	0	7	7.2	0.04	0.04	0.25	0	0	1.06	1.2
5/31/2015	0.008	0.011	0.33	0	7.3	7.5	0.05	0.05	0.65	0.05	0.05	0.99	1
6/30/2015	0.008	0.01	1.15	0	7.5	7.7	0.08	0.08	0	0.06	0.07	4.7	8.1
7/31/2015	0.038	0.086	0	0	6.5	6.7	0	0	0	0	0	0.79	0.97
8/31/2015	0.003	0.009	0	0	6.8	7.7	0.07	0.07	0	0	0	0.615	0.62
9/30/2015	0.008	0.016	0.41	0	6.9	7.1	0.05	0.05	0	0	0	0.54	0.58
10/31/2015	0.005	0.008	0	0	8	8	0.06	0.06	0	**0.62**	0.76	0.79	0.98
11/30/2015	0.0036	0.0051	0	0	7.4	8	0	0	0	0	0	0.71	0.74
12/31/2015	0.005	0.008	0.93	0	7.8	7.9	0.06	0.06	0	0	0	0.79	0.88
1/31/2016	0.008	0.008	0.58	0	7.8	8	0.05	0.05	0	0.06	0.08	0.54	0.6
2/29/2016	0.005	0.008	0	0	7.9	8	0.09	0.09	0.313	0	0	0.905	1.1
3/31/2016	0.007	0.015	4.04	0	7.9	7.9	0	0	0	0.08	0.17	0.83	1.1
4/30/2016	0.005	0.007	0.39	0.28	7.7	8	0	0	0.21	0.04	0.04	0.93	0.95
5/31/2016	0.005	0.007	0	0	7.5	7.6	0.05	0.05	0	0.03	0.03	1.1	1.1
6/30/2016	0.008	0.025	0.42	0.19	7.8	7.9	0.06	0.06	2.1	0.03	0.04	1.3	1.4
7/31/2016	0.007	0.018	0	0.11	7.7	7.8	0.05	0.05	0	0.03	0.03	1.14	1.5
8/31/2016	0.006	0.011	0	0	7.8	8	0.05	0.05	0	0.13	0.25	0.84	1.1
9/30/2016	0.007	0.012	0	0	7.8	7.9	0.05	0.05	0	0.03	0.03	0.59	0.66
10/31/2016	0.009	0.016	0	0	7.7	8	0	0	0	0.03	0.03	0.6	0.61
11/30/2016	0.004	0.009	0.71	0.5	7.7	7.9	0.1	0.1	0	0.01	0.01	0.6	1.2
12/31/2016	0.002	0.004	0.07	0	7.7	8	0	0	0	0.04	0.06	1	1.2
1/31/2017	0.002	0.007	0.21	0	7.4	7.6	0.05	0.05	0	0.08	0.1	1.3	1.5
2/28/2017	0.003	0.009	0.15	0	7.8	8	0	0	0.12	0.075	0.08	1.95	2.1
3/31/2017	0.007	0.016	0	0	7.8	7.9	0	0	0	0.03	0.04	0.69	0.79
4/30/2017	0.006	0.009	2.22	0.22	7.8	7.9	0.05	0.05	0	0.06	0.06	0.76	0.78
5/31/2017	0.006	0.012	0	0	6.9	7	0.01	0.01	0	0.04	0.04	0.6	0.69
6/30/2017	0.008	0.01	0	0	7.8	8	0.02	0.02	0	0.13	0.2	0.63	0.7
7/31/2017	0.001	0.002	0	0	7.4	8	0	0	0	0.07	0.09	2.46	4.3
8/31/2017	0.01	0.02	0	0	7.5	8	0.05	0.05	0	0.06	0.08	0.72	0.79

9/30/2017	0.018	0.044	1.4	0	8	8	0.04	0.04	0	**0.73**	1.4	1.1	1.6
10/31/2017	0.014	0.038	0	0	7.8	8	0.02	0.02	0	0.06	0.07	0.91	0.96
11/30/2017	0.016	0.026	0	0	7.9	8	0	0	0	0.06	0.06	0.53	0.6
12/31/2017	0.018	0.034	0	0	7.8	7.9	0.05	0.05	0	0.07	0.08	0.64	0.65
1/31/2018	0.005	0.01	0.23	0	7.8	7.8	0	0	0	0.115	0.12	0.78	0.86
2/28/2018	0.005	0.014	0	0	7.3	7.5	0.05	0.05	0.41	0.05	0.06	0.5	0.55
3/31/2018	0.011	0.038	2.5	0	7.9	8	0.03	0.03	0	0.08	0.1	0.78	0.9
4/30/2018	0.009	0.024	0	0.158	7.8	7.9	0	0	0	0.12	0.14	2	2.2
5/31/2018	0.016	0.028	0	0.53	7.9	8	0	0	0	0.13	0.17	0.87	0.9
6/30/2018	0.052	0.1	0	0	7.8	8	0	0	0	0.06	0.07	0.87	0.96
7/31/2018	0.02	0.03	0	0	7.8	7.9	0.05	0.05	0	0.06	0.06	0.62	0.66
8/31/2018	0.03	0.11	0	0	7.9	7.9	0	0	0	0.05	0.05	0.43	0.48
9/30/2018	0.016	0.09	0	0	7.6	7.7	0	0	0	0.07	10	0.41	0.42
10/31/2018	0.02	0.02	2	0	6.9	6.9	0.07	0.07	0	0.21	0.37	0.29	0.44
11/30/2018	0.024	0.041	0	0	6.6	8	0	0	0	0.05	0.05	0.3	0.34
12/31/2018	0.015	0.038	0	0.18	7.7	7.8	0.05	0.05	0	0.05	0.06	0.33	0.37
1/31/2019	0.014	0.028	0	0	7.8	7.9	0	0	0	0.05	0.06	0.23	0.24
2/28/2019	0.009	0.029	0	0	7.7	7.8	0	0	0	0.05	0.05	0.28	0.29

Outfall 007 - Effluent

Parameter	Cable Test Tank, Total Volume	Cable Test Tank, Operating Days	Contact Cooling Water, Operatng Days	Contact Cooling Water, Total Volume	Extrusion Lines In Operation, Number	Temperature	Temperature	Temperature	Temperature
	Monthly Avg	Monthly Avg	Monthly Avg	Monthly Avg	Monthly Avg	Monthly Avg	Monthly Avg	Daily Max	Daily Max
Units	Mgal	#	#	Mgal	#	deg C	deg F	deg C	deg F
Effluent Limit	Report	Report	Report	Report	Report	Report	Report	27	80.6
Minimum	0	30	30	0.001	2	13.6	56.5	14.2	57.5
Maximum	0.047	30	30	0.019	3	24.9	76.8	26.6	79.8
Average	0.00338	30	30	0.00617	2.08	20.1	68.1	20.8	69.4
No. of Violations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0
2/28/2014	0.0002	30	30	0.003	2	21.5	70	22	71.6
3/31/2014	0.0001	30	30	0.004	2	20.2	68	21	69
4/30/2014	0.0002	30	30	0.004	2	18.8	65.8	19.2	66.5
5/31/2014	0.000047	30	30	0.001	2	21	69	22	71
6/30/2014	0.00007	30	30	0.002	2	21.1	69.9	21.4	70.5
7/31/2014	0.0001	30	30	0.006	2	21.6	70	24.5	76
8/31/2014	0.001	30	30	0.011	2	23.8	74.8	26.6	79.8
9/30/2014	0.00008	30	30	0.003	2	21	69	21.4	70.5
10/31/2014	0.001	30	30	0.008	2	14.5	58	15.1	59
11/30/2014	0.0002	30	30	0.007	2	20.6	69	21.2	70.1
12/31/2014	0.001	30	30	0.003	2	15.9	60.6	16.3	61.3
1/31/2015	0.0005	30	30	0.005	2	18.7	65	19.1	66
2/28/2015	0.0007	30	30	0.005	2	19.7	67.4	20.2	68.3
3/31/2015	0.001	30	30	0.007	2	16.6	61.8	19.4	66.9

4/30/2015	0.0001	30	30	0.007	2	16.9	62.4	17.2	62.9
5/31/2015	0.0008	30	30	0.007	2	22.05	71.6	23.4	74.1
6/30/2015	0	30	30	0.008	2	21.8	71.24	22.1	71.78
7/31/2015	0.03	30	30	0.007	2	24.9	76.8	25.9	78.62
8/31/2015	0.00008	30	30	0.003	2	21.3	70.3	21.6	70.8
9/30/2015	0.001	30	30	0.007	2	21	69	22	71
10/31/2015	0.0002	30	30	0.005	2	20	68	20.1	68
11/30/2015	0.0002	30	30	0.0033	3	20	68	20	68
12/31/2015	0.0004	30	30	0.005	2	19.1	66	20.1	68
1/31/2016	0.004	30	30	0.004	2	19.3	66.7	20.1	68.1
2/29/2016	0.0008	30	30	0.004	2	14.9	58.8	15.2	59.3
3/31/2016	0.0007	30	30	0.006	2	19.8	67.6	20.1	68.1
4/30/2016	0.0004	30	30	0.004	2	20.7	69.2	21.9	71.4
5/31/2016	0.0008	30	30	0.004	2	18.7	65.6	19.1	66.3
6/30/2016	0.002	30	30	0.006	2	17.9	64.3	18.1	64.5
7/31/2016	0.002	30	30	0.005	2	19.8	67.6	20.1	68.1
8/31/2016	0.001	30	30	0.005	2	20.2	68.3	20.5	68.9
9/30/2016	0.0005	30	30	0.007	2	20.7	69.2	20.9	69.6
10/31/2016	0.001	30	30	0.008	2	18.8	65.8	20.2	68.3
11/30/2016	0.0007	30	30	0.003	2	16.1	60.9	20.3	68.5
12/31/2016	0.0008	30	30	0.001	2	18.7	65.6	19.5	67.1
1/31/2017	0.0008	30	30	0.001	2	20	68	20	68
2/28/2017	0.0008	30	30	0.002	2	13.6	56.5	14.2	57.5
3/31/2017	0.0009	30	30	0.006	2	21.9	71.4	22.1	71.7
4/30/2017	0.0005	30	30	0.006	2	21.1	70	22.2	71.9
5/31/2017	0.0006	30	30	0.005	3	20.15	68.2	20.2	68.3
6/30/2017	0.001	30	30	0.007	2	23.45	74.21	24.4	75.9
7/31/2017	0.002	30	30	0.009	2	21.4	70.52	23	73.4
8/31/2017	0.006	30	30	0.003	2	21.45	70.61	22.1	71.7
9/30/2017	0.008	30	30	0.01	2	20.4	68.7	20.6	69.08
10/31/2017	0.007	30	30	0.007	2	19.95	67.9	20.1	68.1

11/30/2017	0.001	30	30	0.014	2	20.1	68.1	20.2	68.3
12/31/2017	0.003	30	30	0.015	2	20.6	69.1	21.1	69.9
1/31/2018	0.001	30	30	0.004	2	20.75	69.3	21.3	70.34
2/28/2018	0.001	30	30	0.003	2	21.8	71.2	21.9	71.4
3/31/2018	0.005	30	30	0.006	2	20.5	68.9	21.2	70.1
4/30/2018	0.004	30	30	0.005	2	21.15	70	21.5	70.7
5/31/2018	0.006	30	30	0.01	2	21.5	70.7	22	71.6
6/30/2018	0.047	30	30	0.005	2	21.2	70.16	21.3	70.34
7/31/2018	0.018	30	30	0.008	3	20.9	69.7	21.1	69.9
8/31/2018	0.015	30	30	0.014	2	21.8	71.2	22.7	72.8
9/30/2018	0.006	30	30	0.01	2	21.6	70.8	22	71.6
10/31/2018	0.004	30	30	0.01	2	22.3	72.1	22.5	72.5
11/30/2018	0.004	30	30	0.019	2	19.5	67.1	20.8	69.44
12/31/2018	0.002	30	30	0.013	2	21.1	69.9	21.5	70.7
1/31/2019	0.004	30	30	0.001	3	21.25	70.25	21.8	71.24
2/28/2019	0.004	30	30	0.005	3	21.05	69.8	21.2	70.1

Outfall 007 – Effluent – Whole Effluent Toxicity

Parameter	Total Solids	TDS	pH	TRC	LC50 Acute Ceriodaphnia	LC50 Acute Menidia	Ammonia	Hardness	Alkalinity	TOC	Specific Conductance
	Daily Max	Daily Max	Daily Max	Daily Max	Daily Min	Daily Min	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max
Units	mg/L	mg/L	SU	mg/L	%	%	mg/L	mg/L	mg/L	mg/L	umho/cm
Effluent Limit	Report	Report	Report	Report	50	50	Report	Report	Report	Report	Report
Minimum	120	120	6.9	0	100	100	0	0	27	2.1	211
Maximum	140	140	7.7	0.053	100	100	0.1	28	36	3.7	2283
Average	128	125	7.3	0.0283	100	100	0.075	20.3	31.3	3	760
No. of Violations	N/A	N/A	N/A	N/A	0	0	N/A	N/A	N/A	N/A	N/A
7/31/2010	130	120	7.4	0.053	100	100	<0.1	0	27	3.7	2283
7/31/2011	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9
7/31/2012	120	120	7.7	0.04	100	100	<0.1	28	28	2.1	211
7/31/2013	140	140	7.2	0	100	100	<0.1	27	36	3.4	267
7/31/2014	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9
7/31/2015	120	120	6.9	0.02		100	<0.1	26	34	2.8	280

Outfall 007 – Effluent – Whole Effluent Toxicity Continued

Parameter	Copper	Lead	Nickel	Zinc	Aluminum	Cadmium	Chromium	
	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max	
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Effluent Limit		Report	Report	Report	Report	Report	Report	Report
7/31/2010		0.033	0.002	0.004	0.56	0.12	<0.0005	<0.002
7/31/2011			NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9
7/31/2012		0.13	0.023	0.004	0.26	0.18	<0.0005	<0.002
7/31/2013		0.028	0.0007	0.004	0.37	0.035	<0.0005	<0.002
7/31/2014			NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9	NODI: 9
7/31/2015		0.029	<0.0005	0.078	0.69	<0.02	<0.0005	<0.002

Appendix B: Reasonable Potential Analysis

Methodology

Reasonable potential analysis is completed using a single set of critical conditions for flow and pollutant concentration that will ensure the protection of water quality standards. To determine the critical condition of the effluent, EPA projects an upper bound of the effluent concentration based on the observed monitoring data and a selected probability basis. EPA generally applies the quantitative approach found in Appendix E of the *Technical Support Document for Water Quality-based Toxics Control* (TSD)[1] to determine the upper bound of the effluent data. This methodology accounts for effluent variability based on the size of the dataset and the occurrence of non-detects (i.e., samples results in which a parameter is not detected above laboratory detection limits). For datasets of less than 10 samples, EPA used a lognormal distribution and conservative coefficient of variation of 0.6 to calculate the 95th percentile.

EPA typically uses the calculated upper bound of the effluent data, along with a concentration representative of the parameter in the receiving water, the critical effluent flow, and the critical upstream flow to project the downstream concentration after complete mixing. However, where receiving water information is unavailable, EPA compares the calculated upper bound of the effluent data to the applicable criteria, adjusted for available dilution using the following calculation:

$$C = \frac{C_e}{Q_d}$$

Where:

C = downstream concentration
C_e = effluent concentration (95th percentile of effluent concentrations)
Q_d = available dilution

As required by Env-Wq 1705.01, 10% of the assimilative capacity of the receiving water is reserved by using a multiplying factor of 0.9 in this calculation. When both the downstream concentration (C) and the effluent concentration (C_e) exceed the applicable criterion multiplied by 0.9, there is reasonable potential for the discharge to cause, or contribute to an excursion above the water quality standard. *See* 40 C.F.R. § 122.44(d). When EPA determines that a discharge causes, has the reasonable potential to cause, or contribute to such an excursion, the permit must contain WQBELs for the parameter. *See* 40 C.F.R. § 122.44(d)(1)(iii).

Determination of Applicable Criteria

State water quality criteria are found in Env-Wq 1703.24. Freshwater aquatic life criteria for aluminum, copper, lead, nickel and zinc are established in terms of dissolved metals and are converted to total recoverable using published conversion factors. The applicable criteria for this reasonable potential analysis are summarized in the table below.

Summary of Applicable Criteria

Parameter	Conversion Factors[1]		Applicable Criteria	
	Acute	Chronic	Acute Criteria (CMC)	Chronic Criteria (CCC)
Units	—	—	**µg/L**	**µg/L**
Copper	0.830	0.830	5.78	3.73
Lead	0.951	0.951	220.82	8.52
Nickel	0.990	0.990	74.75	8.28
Zinc	0.946	0.946	95.14	85.62
Total Residual Chlorine	—	—	13.00	7.50

[1]For dissolved to total recoverable metal conversion, *See Appendix A - Conversion Factors for Dissolved Metals:* http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm#appendxa; Required by Env-Wq 1703.23.

Calculation of Reasonable Potential

EPA first calculated the upper bound of expected effluent concentrations for each parameter. EPA then used the calculated upper bound of expected effluent concentrations, and the dilution factor determined by NHDES to project the in-stream concentration downstream from the discharge. When both this resultant in-stream concentration (C) and the effluent concentration (C_e) exceed the applicable criterion multiplied by 0.9, there is reasonable potential for the discharge to cause, or contribute to an excursion above water quality standards. The results are summarized in the table below.

Summary of Reasonable Potential Results

Parameter	Effluent Concentration[1]	Downstream Concentration[2]	Acute Criterion	Chronic Criterion	Acute Reasonable Potential[4]	Chronic Reasonable Potential[5]
Units	**µg/L**	**µg/L**	**µg/L**	**µg/L**	**—**	**—**
Copper	465.3	4.65	5.78	3.73	N	Y
Lead	59.8	0.6	220.82	8.52	N	N
Nickel	202.8	2.0	74.75	8.28	N	N
Zinc	3027.4	30.3	95.14	85.62	N	N
Total Residual Chlorine	134.4	1.3	13	7.5	N	N

[1] Values represent the 95th percentile concentration calculated using the monitoring data reported by the Facility (*See* Appendix A).
[2] Values represent the 95th percentile concentration divided by the dilution factor 100:1.
[3]"Y" is indicated if both effluent concentration and downstream concentration exceeds the acute criterion.
[4] "Y" is indicated if both effluent concentration and downstream concentration exceeds the chronic criterion.

Copper has a reasonable potential to cause or contribute to an excursion above chronic, but not acute water quality standards.

Calculation of Effluent Limitations

EPA calculated the effluent limitations for total recoverable copper and zinc by setting the maximum allowable effluent concentration equal to the applicable criterion, adjusted for available dilution. While discharges of zinc did not have a reasonable potential to cause or contribute to an excursion above water quality standards, EPA confirmed the effluent limitation previously established. The results are summarized in the table below.

Summary of Effluent Limitations

Parameter	Acute Criterion	Chronic Criterion	Available Dilution	Daily Max Effluent Limitation	Monthly Avg Effluent Limitation
Units	**mg/L**	**mg/L**	**---**	**mg/L**	**mg/L**
Copper	0.00578	0.00373	100:1	N/A	0.37
Zinc	0.09514	0.08562	100:1	N/A	8.6

Note that when the effluent limitation is calculated to be lower than the applicable criterion multiplied by 0.9, then the effluent limitation is set equal to the criterion. Because regulations at 40 C.F.R. § 122.45(c) require, with limited exceptions, that effluent limits for metals in NPDES permits be expressed as total recoverable metals, effluent limitations are expressed as total recoverable metals. *See* EPA-823-B96-007, *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion:*1996.

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
WATER DIVISION
P.O. BOX 95
CONCORD, NEW HAMPSHIRE 03302-0095

U.S. ENVIRONMENTAL PROTECTION AGENCY-REGION 1
WATER DIVISION
5 POST OFFICE SQUARE
BOSTON, MASSACHUSETTS 02109

JOINT PUBLIC NOTICE OF A DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE INTO THE WATERS OF THE UNITED STATES UNDER SECTIONS 301 AND 402 OF THE CLEAN WATER ACT (THE "ACT"), AS AMENDED, AND REQUEST FOR STATE CERTIFICATION UNDER SECTION 401 OF THE ACT, AND ISSUANCE OF A STATE SURFACE WATER PERMIT UNDER NH RSA 485-A:13, I(a).

PUBLIC NOTICE PERIOD: **June 13, 2019 – July 12, 2019**

PERMIT NUMBER: **NH0001490**

PUBLIC NOTICE NUMBER: **NH-006-19**

NAME AND MAILING ADDRESS OF APPLICANT:

SubCom Cable Systems, LLC
100 Piscataqua Drive
Newington, NH 03801

NAME AND LOCATION OF FACILITY WHERE DISCHARGE OCCURS:

SubCom Cable Systems, LLC
100 Piscataqua Drive
Newington, NH 03801

RECEIVING WATER: Piscataqua River, Class B

PREPARATION OF THE DRAFT PERMIT:

The U.S. Environmental Protection Agency (EPA) and the New Hampshire Department of Environmental Services, Water Division (NHDES-WD) have cooperated in the development of a Draft Permit for SubCom Cable Systems, LLC, which discharges extrusion contact cooling water, cable test tank water used to submerge the cables for diagnostic testing, and a de minimus amount of condensate water from air conditioning units. The effluent limits and permit conditions imposed have been drafted to assure compliance with the Clean Water Act, 33 U.S.C. sections 1251 et seq., Chapter 485-A of the New Hampshire Statutes: Water Pollution and Waste Disposal, and the New Hampshire Surface Water Quality Regulations, Env-Wq 1700 et seq. EPA has formally requested that the State certify the Draft Permit pursuant to Section 401 of the Clean Water Act and expects that the Draft Permit will be certified.

INFORMATION ABOUT THE DRAFT PERMIT:

The Draft Permit and explanatory Fact Sheet may be obtained at no cost at http://www.epa.gov/region1/npdes/draft_permits_listing_nh.html or by contacting:

Sharon DeMeo
U.S. Environmental Protection Agency – Region 1
5 Post Office Square, Suite 100 (06-1)
Boston, MA 02109-3912
Telephone: (617) 918-1995
demeo.sharon@epa.gov

The administrative record containing all documents relating to this Draft Permit including all data submitted by the applicant may be inspected at the EPA Boston office mentioned above between 9:00 a.m. and 5:00 p.m., Monday through Friday, except holidays.

PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:

All persons, including applicants, who believe any condition of the Draft Permit is inappropriate, must raise all issues and submit all available arguments and all supporting material for their arguments in full by **July 12, 2019**, to the address or email address listed above. Any person, prior to such date, may submit a request in writing to EPA and NHDES for a public hearing to consider this Draft Permit. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the Draft Permit, the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

FINAL PERMIT DECISION:

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator will issue a Final Permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice.

THOMAS E. O'DONOVAN, P.E., DIRECTOR
WATER DIVISION
NEW HAMPSHIRE DEPARTMENT OF
ENVIRONMENTAL SERVICES

KEN MORAFF, DIRECTOR
WATER DIVISION
U.S. ENVIRONMENTAL PROTECTION
AGENCY - REGION I